

October 1938.

Technological Bulletin,
Series A, No. 46.

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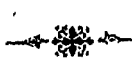
**Indian Central Cotton Committee
Technological Laboratory.**

**TECHNOLOGICAL REPORTS
ON
TRADE VARIETIES OF
INDIAN COTTONS,
1938**

BY

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BOMBAY
BRITISH INDIA PRESS
1938.

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INTRODUCTION.

ONE of the main functions of the Technological Laboratory is to undertake under known and reproducible conditions, spinning tests on Indian cottons. Upto 1929, these tests were confined mostly to samples supplied by cotton breeders and agricultural officers of the Provincial Agricultural Departments. These samples represented either new varieties which were under trial or cottons grown in connection with such field experiments as the effect of different amounts of irrigations, different rotation of crops, different dates of sowing, etc., etc. As most of the samples tested at the Laboratory for the Agricultural Departments are in the experimental stage, the results of the tests made on them are not published for general information, but are communicated only to the departments concerned. With the expansion of the Committee's schemes in the provinces and the general recognition of the importance of the Laboratory tests, the number of such samples went on increasing steadily, but there was a general feeling that the work of the Laboratory should also be made more directly useful to the trade and the industry. It was felt that this purpose would best be served by carrying out spinning tests at the Laboratory on such samples of representative trade varieties as form the bulk of the Indian cotton crop. In order to put this idea into effect arrangements were made with the East India Cotton Association, Ltd., Bombay, for the supply of fair average quality of different trade varieties of Indian cotton for which the results of spinning tests could be broadcast for general information. These tests which were first made on the 1929-30 crop, have since been repeated on the same varieties without a break in the past nine seasons. The samples for these tests are selected by the Standards Committee of the East India Cotton Association, who also very kindly value them and give their opinion regarding their staple, class, regularity, strength, etc., etc. The tests on these samples are made with two objects. In the first place, they place in the hands of the trade and the industry reliable information regarding the waste losses and the spinning performance of the chief representative types of Indian cotton. This information is available not only to merchants and spinners in India, but also to those in the foreign countries who import or wish to import Indian cotton for their use. Thus, the consumers of Indian cottons, both in India and abroad, obtain reliable information regarding the spinning quality of the different types of Indian cottons in each season. In the second place, as these tests are made every year on samples of fair average quality selected by an expert and authoritative body like the Standards Committee of the East India Cotton Association, their results taken over a number of years are useful in showing whether a particular variety of cotton is maintaining its quality or showing signs of improvement or deterioration. If any particular variety is found, from the data available for a sufficient number of years, to show signs of steady deterioration, which is regarded as being outside the seasonal fluctuation, then it is possible to undertake an investigation into the causes of this deterioration and to adopt

the necessary remedial measures. It is clear that, in the absence of any reliable data obtained under definitely known and reproducible conditions on samples of fair average quality, it would not be possible to say definitely whether or not any particular type is showing signs of deterioration. The deterioration may, therefore, go on undetected for a number of years when it might have been possible to check it by ensuring a supply of pure seed or development of a new type. The following is a list of cottons which are to be supplied each year by the East India Cotton Association, Bombay.

Cottons received from the East India Cotton Association :—

1. C. P. No. 1	14. Kadi-Virangam
2. Berar	15. Westerns
3. Khandesh	16. Farm Westerns
4. Nanded	17. Kumpta
5. Latur	18. Upland
6. Muttia	19. Bijapur
7. Punjab-American	20. Bagalkote
8. Broach	21. Cambodia
9. Jagadia	22. Tinnevely
10. Surat	23. Karanganni
11. Navsari	24. A. R. Kompala
12. Dhollerias	25. A. R. Busoga
13. Kalagin	26. A. R. Jinja

During the current year all except Nanded, Farm Westerns, Upland and Cambodia were received from the East India Cotton Association.

At the same time as the foregoing arrangement was made with the East India Cotton Association, Ltd., Bombay, it was also arranged with the Bombay Millowners' and the Ahmedabad Millowners' Associations, that some of their mill members would kindly supply to the Laboratory samples of early arrivals of different varieties of the Indian cotton crop. The object of making these tests was to place in the hands of the industry information regarding the waste losses and the spinning performance of different trade varieties in the early part of the season in order to enable the consumers to decide which of these cottons would be suitable for their mixings. These tests were begun in 1930-31, and have been continued upto the present season. In view of the fact, however, that sometimes a mill using a particular style of cotton in one season decided not to purchase the same style in the following season, a certain amount of discontinuity has occurred in some of these varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may also be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying the samples were requested to furnish their own valuation reports. The following is a list of

the cottons tested at the Laboratory under this arrangement with the Bombay and Ahmedabad Millowners' Associations :—

The following is a list of cottons which are to be received from the Bombay Millowners' Association each year :—

- | | |
|----------------------|-----------------------|
| 1. Farm Westerns | 11. Westerns |
| 2. Bailhongal | 12. Miraj |
| 3. Broach | 13. Surat |
| 4. Karunganni | 14. Navsari |
| 5. Nandyal | 15. Tiruppur Cambodia |
| 6. Northern Cambodia | 16. Hubli Kumpta |
| 7. Bengals | 17. Hubli Upland |
| 8. Khandesh | 18. Kampala (African) |
| 9. Ujjain | 19. Busoga (African) |
| 10. Moglai | 20. Jinja (African) |

During the current season Nandyal, Northern Cambodia, Navsari and Hubli Upland were not received for tests.

Cottons which are to be received from the Ahmedabad Millowners' Association each year are as follows :—

- | | | |
|------------|----------|---------|
| 1. Jagadia | 2. Bawla | 3. Kadi |
|------------|----------|---------|

None of these cottons were received during the current year.

The plan followed in presenting the results of tests carried out on these cottons is very nearly the same as that adopted in the Technological Reports on Standard Indian Cottons. Each technological report gives the grader's valuation report, spinning master's report, and the table of spinning test results which show the waste losses, number of yarn breakages in the ring frame, the actual counts spun, the results of the lea test and the ballistic test, actual number of turns per inch, front roller and spindle speeds, drafts employed, estimate of yarn neppiness and yarn evenness and the physical conditions of temperature and humidity prevailing in the spinning room and the yarn testing room. There is, however, this difference between these reports and those on the Standard Indian Cottons that as fibre tests are not made on these trade varieties, these reports do not contain the fibre test results, nor any attempt has been made to summarise the results in the form of 'remarks.'

The supply of these samples together with the valuation reports has not been free from a certain amount of extra work on the part of those who have very kindly co-operated with me in these tests. My best thanks are therefore due to the members of the Standards Committee of the East India Cotton Association, Bombay, and its office-bearers and to the mills supplying the samples. My thanks are also due to Major Ellis Jones for valuing some of the samples, to Messrs. R. P. Richardson and V. V. Gupte for supervising the spinning tests and to Mr. V. Venkataraman for assisting me in the compilation of the test result labels.

1.—C. P. No. 1 COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample Cotton.	Place.	Season.	Sample Cotton.	Place.	Season.
C.P. No. 1. Katol	..	1930-31	2654 C.P. No. 1. Panderkora	1934-35	
..	Nagpur	.. 1931-32	3110 ..	Nagpur	.. 1935-36
..	..	.. 1932-33	3473 ..	Panderkora	1936-37
..	Panderkora	1933-34	3939 ..	..	1937-38

I.—SPINNING TESTS.

TECHNOLOGICAL REPORTS ON COTTONS SUPPLIED BY THE EAST INDIA COTTON ASSOCIATION LTD., BOMBAY.

These samples are of fair average quality of the representative trade varieties which form the bulk of the Indian Cotton crop. The samples were selected by the Standards Committee of the East India Cotton Association, who have also very kindly furnished the valuation reports regarding their staple length, class, regularity, strength, etc.

..	..	Fairly clean,	Slightly stained;	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.	Fairly clean.
..	..	Good.	Good.	Good and ref.	Rough.	Good.	Slightly rough.	Roughish.	Roughish.
d Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..
..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Good even.	Clean.
..	..	Good.	Good.	Fairly even and	Even and nep-	Good.	Good.	Good; nep-	Good; almost
10 flat strips.	Very light; 12.3	15.8 grams.	16.2 grams.	16.9 grams.	10.3 grams.	12.2 grams.	14.0 grams.	14.7 grams.	14.7 grams.
..	..	Fully-pressed.	..	..	..	..	..	..	..

(b) Yarn :—

C. P. No. 1.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.
..	Fairly even.	Somewhat uneven.	Fairly even.	Somewhat uneven.	Somewhat uneven.	Even.	Even.	Even.
..	Practically free.	Practically free.	Free of nep.	Nep-free.	Free of nep.	Almost free of nep.	Free of nep.	Almost free of nep.
..	..	Fairly slubby.	..	..	A little slubby.	..	..	..
..

Spinning Test Details and Results.—See Table 1 on page 3.

II.—REPORT OF THE STANDARDS COMMITTEE FOR C. P. No. 1 COTTON.

C. P. No 1.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Fine C. P. No. 1.	F. G. M. G. Branch No. 2.	F. M. G. Oomra Hedge Contract, No. 3.	Fine M. G. Oomra (Barat) H. C. No. 3.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1938 delivery.
Class	Fine to Superfine.	Barely fine.	Superfine.	Fine to Superfine.	Strict Superfine.	Superfine to Extra Superfine.	Barely fine.	Fine.
Colour	White.	Somewhat yellowish stain.	White	Dullish white.	Bright white.	Creamish white.	Creamy-white.	White.
Staple Length ..	5/8".	3/4".	5/8".	5/8".	11/16".	5/8".	5/8".	5/8".
Staple Strength ..	Regular.	Fair.	Fair.	Fair.	Fair.	Fair.	Medium.	Fair.
Regularity	Regular.	Fair.	Regular.	Regular.	Fair.	Regular.	Fairly regular.	Regular.
Value above or below Contract rate.	Rs. 2 on.	Rs. 4 off.	Rs. 12 on.	Rs. 15 on.	Rs. 20 on.	Rs. 22 on.	Rs. 13 on.	Rs. 1k on.
Basis	Rs. 168.	Rs. 175.	Settlement rate of F. M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 167.	Fine M. G. Oomra (Barat) H. C. No. 3, March 1934 delivery Rs. 160.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 226.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 170.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery Rs. 205.	Fine M. G. Oomra Hedge Contract No. 3, March 1938 delivery Rs. 156.
Date of Valuation	20-1-31.	9-5-32.	25-3-33.	7-2-34.	30-1-35.	2-3-36.	28-1-37.	2-2-38.
Remarks .. ..	..	Black leaf.	..	..	..	..	..	..

Table 1.—SPINNING TEST RESULTS FOR C. P. No. 1 COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).		Spiraling Room.	Testing Room.	
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALISTOG.			Reverses class.	Neps per yard.	Turns per Inch. Actual.			Spiraling Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.).	Count-Work Product.						
999	C.P. No. 1	1930-31	12-3-31	10A	10	5.8	9.0	0.6	13.9	60	197	9900	5.21	12.63	10.3	48.4	499	10.3	190.0	1957	4	1.2	12.0	80	67	
999	"	1930-31	12-3-31	10C	"	"	"	"	"	0	193	7500	5.21	14.29	9.9	101.1	1004	9.9	232.8	2305	4	1.5	13.0	81	66	
1336	C.P. No. 1	1931-32	13-5-32	10A	10	5.9	9.0	0.3	14.6	18	176	5900	5.44	12.63	9.8	65.3	640	10.0	208.8	2088	4	1.0	12.1	91	69	
1336	"	1931-32	14-5-32	10C	"	"	"	"	"	36	192	7000	5.56	14.29	9.8	100.9	689	10.1	225.0	2279	5	1.2	13.8	89	66	
1724	C.P. No. 1	1932-33	1-4-33	10A	10	6.7	10.0	0.5	16.4	61	171	5850	5.26	12.63	9.8	78.0	704	10.1	220.8	2230	4	0.5	12.1	85	72	
1724	"	1932-33	1-4-33	10C	"	"	"	"	"	61	191	7700	5.41	14.29	10.1	163.3	1004	10.4	226.0	2350	4	1.0	13.8	87	66	
1724	"	1932-33	3-1-33	12C	"	"	"	"	"	109	182	7700	5.92	15.61	12.2	76.1	928	12.4	186.6	2351	4	0.8	14.9	85	69	
2137	C.P. No. 1	1933-34	11-2-34	10A	10	3.8	12.0	0.2	15.6	44	176	6000	5.35	12.63	10.0	63.3	633	9.9	216.8	2146	4	1.0	12.5	82	66	
2137	"	1933-34	11-2-34	10C	"	"	"	"	"	13	196	7650	5.36	14.29	9.9	116.2	1150	10.0	237.6	2376	5	1.0	14.0	82	70	
2651	C.P. No. 1	1934-35	8-2-35	10A	10	6.9	10.4	0.1	16.7	36	176	9100	5.12	12.63	10.4	41.9	430	10.2	199.2	2002	4	1.0	12.0	80	69	
2651	"	1934-35	8-2-35	10C	"	"	"	"	"	0	196	7500	5.12	14.29	10.2	61.7	935	10.2	219.2	2230	5	0.8	13.6	80	68	
3110	C.P. No. 1	1935-36	9-3-36	10A	10	4.1	9.8	0.1	13.6	0	194	9900	5.26	12.63	10.5	90.8	1048	10.5	214.8	2570	3	0.6	12.2	80	67	
3110	"	1935-36	9-3-36	10C	"	"	"	"	"	9	201	8000	5.26	14.29	10.3	146.0	1533	10.4	208.8	2796	3	0.8	13.8	82	65	
3110	"	1935-36	14-3-36	12A	"	"	"	"	"	13	188	7300	5.30	17.92	12.6	71.4	900	12.6	188.8	2370	4	1.0	13.3	81	61	
3473	C.P. No. 1	1936-37	1-2-37	10A	10	5.8	10.2	0.3	15.7	27	196	7000	5.48	12.63	10.0	72.6	726	10.2	234.4	2391	3	0.5	12.2	80	66	
3473	"	1936-37	1-2-37	10C	"	"	"	"	"	19	209	8300	5.48	14.29	10.1	117.5	1137	9.8	278.4	2723	3	0.8	13.8	81	69	
3473	"	1936-37	4-2-37	12B	"	"	"	"	"	51	188	7700	6.71	14.93	12.8	53.8	639	12.8	180.0	2304	4	0.8	14.2	81	68	
3939	C.P. No. 1	1937-38	9-2-38	10A	10	6.0	8.7	0.3	15.1	37	192	6400	5.63	12.63	10.1	70.9	737	10.2	232.8	2273	3	1.0	12.2	80	67	
3939	"	1937-38	10-2-38	10B	"	"	"	"	"	18	210	7800	5.63	13.56	10.5	95.3	1001	10.3	238.4	2456	3	1.2	13.2	81	66	
3939	"	1937-38	10-2-38	12C	"	"	"	"	"	44	200	8400	5.45	15.61	12.3	85.1	1047	12.2	198.8	2425	3	1.0	15.1	82	65	

* The ring frame front roller diameter—1". Diameter of rings—1 1/4".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BERAR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1004	Berar	Amraoti	1930-31.	2656	Berar	Akote	1934-35.
1335	"	Murtizapur	1931-32.	3264	"	Akola	1935-36.
1723	"	Amraoti	1932-33.	3474	"	Anjangaon	1936-37.
2136	"	Shegaon	1933-34.	3926	"	Akola	1937-38.

1. Treatment :—

(a) *Blow-room*—Upto 1934-35 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	BERAR.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	Creamy-white.	White to creamy-white	White; bright.	White to creamy-white.	Creamy-white.	Creamy-white to white.	White to creamy-white.
Cleanliness ..	Trifle stained; a little leafy.	Somewhat stained, leafy.	Leafy ..	Somewhat leafy.	Leafy ..	Slightly stained; leafy.	Fairly clean, a little stained; contains leaf.	Leafy.
Feel	Slightly harsh.	Roughish ..	Good ..	Good-bodied ..	Roughish ..	Good ..	Fairly good ..	Fair.
Glossing and Neppiness	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	..	A little knotted.	Well-ginned ..	Well-ginned.
Seeds	0.75 per cent unginned.	..	A few seeds ..	..	Many unginned seeds.	..	..	..
Card silver .. ..	..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Almost clean ..	Good soft; contains a little leaf.	Clean.
Card web .. ..	..	Good ..	Fairly even and nep-free.	Even and nep-free.	Good ..	A little neppy and cloudy.	Good; almost nep-free.	Good; quite free of neps.
Weight of 10 hankstrips	..	10.4 grams ..	10.0 grams ..	14.0 grams ..	10.5 grams ..	23.3 grams ..	10.4 grams ..	15.8 grams.
Remarks .. ..	..	Fully-pressed.	..	..	..	..	..	..

(b) Yarn :—

	BERAR.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Almost clean ..	Fairly clean ..	Clean.
Evenness ..	Fairly even ..	Somewhat uneven.	Fairly even ..	Fairly uneven.	Somewhat uneven.	Even ..	Fairly even ..	Fairly even.
Neppiness ..	Free ..	Practically free ..	Free ..	Nep-free ..	Nep-free ..	Nep-free ..	Free of nep ..	Free of nep.
Stubbiness ..	Somewhat stubby.	Fairly stubby.	..	..	..	..	A little stubby	..
Remarks .. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 2 on page 6.

IN ARDS COINTEGRATION

BIBAR.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under.		Fine Oomra No. 3.	F. G. M. G. Brosch No. 2.	F. M. G. Oomra Hedge Contract No. 3.	F. M. G. Oomra (Borar) H. C. No. 3.	Fine M. G. Oomra Hedge Contract No. 3, March 1935, delivery.	Fine M. G. Oomra H. C. No. 3, July 1936, delivery.	Fine M. G. Oomra H. C. No. 3, March 1937, delivery.	Fine M. G. Oomra H. C. No. 3, Dec.- Jan. 1938, delivery.
Class	..	..	Fully good to fine.	Superfine.	Superfine.	Extra superfine.	Fine.	Fully good to fine.	Superfine.
Colour	..	..	Bluish white with yellow stains.	White.	White.	White.	Greyish white.	Dull white.	Creamy-white.
Staple length	..	..	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".
Staple strength	..	..	Good.	Fair.	Fair.	Fair.	Good.	Good.	Fair.
Regularity	..	..	Regular.	Regular.	Regular.	Fair.	Regular.	Fairly regular.	Regular.
Value above or below contract rate	..	..	Rs. 14 off.	Rs. 5 on.	Rs. 3 on.	Rs. 7-8 on.	Par.	Pass.	Rs. 5 on.
Basis	..	..	Rs. 175.	Settlement rate of F. F. M. G. Oomra (Borar) H. C. No. 3, March 1934 M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 100.	Fine M. G. Oomra Hedge Contract No. 3, March 1935 delivery Rs. 226.	Fine M. G. Oomra H. C. No. 3, July 1936 Rs. 208.	Fine M. G. Oomra H. C. No. 3, March 1937 Rs. 205.	Fine M. G. Oomra H. C. No. 3, March 1937 Rs. 205.	Fine M. G. Oomra H. C. No. 3, Dec.- Jan. 1938, delivery Rs. 154.
Date of Valuation	..	..	9-5-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.	25-1-38.
Remarks	..	..	Black leaf.	..	..	..	..	..	..

3.—KHANDESH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1001	Khandesh	Dhulia.	1930-31.	2655	Khandesh	Dhulia.	1934-35.
1432	"	Chopda.	1931-32.	3265	"	Amalner.	1935-36.
1722	"	Dhulia	1932-33.	3475	"	Chalisgaon.	1936-37.
2138	"	"	1933-34.	3925	"	Dhulia.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times), 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KHANDESH.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; fairly bright.	Dull creamy.	White to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to creamy.	White to creamy-white.	White to creamy-white.
Cleanliness ..	A little leafy; occasional spot of stain.	Leafy ..	Leafy ..	Leafy; occasionally stained.	Leafy ..	Leafy; stained.	Leafy; a trifle stained.	Very leafy.
Feel	Good ..	..	Good softish.	Good ..	Slightly rough.	Good ..	Roughish ..	Fair.
Ginning and neppiness ..	Well-ginned ..	Fairly well-ginned.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Well-ginned.
Seeds .. ..	..	1.4% unginned.	..	..	..	Few unginned seeds.	..	..
Card silver ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Little leafy ..	Good; Leafy.	Almost clean.
Card web ..	First class ..	Fairly good.	Even and nep-free.	Even and nep-free.	Good ..	Trifle neppy and cloudy.	Good; nep-free; a little leafy.	Good; almost free of neps.
Weight of ten flat strips ..	10.1 grams very light.	15.8 grams	14.8 grams	15.2 grams	17.1 grams	24.5 grams	11.6 grams	10.1 grams.
Remarks .. ..	..	..	..	..	..	A wasty sample.	..	..

(b) Yarn :—

	KHANDESH.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Almost clean.	Clean ..	A little leafy ..	Fairly clean ..	Almost clean.
Evenness ..	Fairly even ..	Even ..	Even ..	Fairly uneven.	Even in the lower count.	Fairly even ..	Even ..	Fairly even.
Neppiness ..	Fairly nep-free.	Practically nep-free.	Nep-free ..	Nep-free ..	Fairly free of nep.	Fairly free of nep.	Almost free of nep.	Free of nep.
Slubbiness ..	..	..	..	..	A little slubby.	..	..	..
Remarks .. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 3 on page 9.

Table 3.—SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (%).		RELATIVE HUMIDITY (%).	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles.	Front Roller Speed, ft. p. m.	Spindle Speed, ft. p. m.	Draft.	Turns per inch.	STRENGTH.			BALANCING.			Spinning Room.	Spinning Room.			
														Counts Actual.	Strength (lbs.)	Count-Strength Ratio.	Counts Actual.	Work of Ring (inch-lbs.)	Count-Work Product.					
1001	1930-31	13-3-31	10A	10	8.7	7.4	0.0	10.0	20	105	6,850	5.25	12.03	10.1	77.0	794	10.3	200.2	2,155	4	2.6	11.8	70	67
1001	1930-31	13-3-31	14A		..	..	..	..	20	132	6,350	0.81	14.08	13.8	11.3	811	11.0	127.0	1,786	5	3.0	11.2	67	69
1001	1930-31	13-3-31	14B		..	..	..	..	100	163	8,750	0.67	16.85	14.7	55.9	822	11.3	110.8	2,013	6	3.2	10.2	69	69
1432	1931-32	25-8-32	16A	9	16.3	11.3	0.7	26.3	17	104	8,550	3.11	15.07	15.7	80.3	1,201	13.4	141.8	2,184	3	1.0	15.2	72	70
1432	1931-32	25-8-32	20		..	..	..	..	111	125	9,000	3.56	17.03	19.6	68.0	1,156	10.6	105.4	2,006	3	1.2	17.2	67	71
1722	1932-33	31-3-33	12A	10	11.1	9.2	0.6	19.8	121	100	7,300	5.21	13.02	12.0	60.7	809	11.0	102.0	2,285	3	0.5	13.1	60	71
1722	1932-33	31-3-33	12B		..	..	..	..	100	108	7,050	5.21	14.08	12.0	82.0	505	11.8	106.5	2,322	3	0.8	14.2	65	70
1722	1932-33	31-3-33	16B		..	..	..	..	104	174	8,700	5.78	17.08	16.3	54.3	800	10.1	113.6	2,312	4	0.8	17.1	65	70
2138	1933-34	14-2-34	10A	10	11.1	11.0	0.4	21.7	27	202	7,000	6.71	12.03	9.9	106.5	1,057	10.1	213.6	2,350	1	1.0	12.2	70	72
2138	1933-34	15-2-34	12B		..	..	..	..	15	194	7,050	5.44	14.03	12.6	93.7	1,141	11.5	200.1	2,374	3	1.0	11.2	64	73
2138	1933-34	15-2-34	14B		..	..	..	..	63	186	8,500	6.88	16.85	13.8	81.0	1,172	13.6	171.6	2,308	6	1.2	16.1	67	72
2655	1934-35	9-2-35	10A	10	11.1	10.7	0.4	20.9	45	106	6,050	5.37	12.03	10.0	87.1	871	9.9	210.6	2,171	1	1.5	12.0	68	71
2655	1934-35	11-2-35	12B		..	..	..	..	36	106	7,000	5.38	14.03	12.5	60.6	870	12.3	134.1	2,263	5	1.2	13.8	70	70
2655	1934-35	11-2-35	14B		..	..	..	..	63	182	8,250	6.13	16.85	14.2	68.7	976	11.2	155.6	2,210	5	1.2	16.0	69	66
3205	1935-36	6-7-36	10A	10	11.2	13.1	0.1	23.1	18	106	6,650	5.33	12.03	10.0	67.0	970	9.0	215.2	2,323	4	1.0	12.3	72	70
3205	1935-36	6-7-36	12B		..	..	..	..	15	108	8,000	5.31	14.03	11.0	68.0	920	11.0	200.2	2,197	5	1.5	14.2	71	70
3205	1935-36	14-7-36	120		..	..	..	..	33	107	8,750	5.42	15.06	12.0	81.8	982	12.2	100.1	2,306	4	0.8	15.3	71	72
3205	1935-36	7-7-36	14B		..	..	..	..	80	188	8,800	6.22	16.85	14.0	61.0	904	14.1	171.1	2,160	5	1.2	16.1	71	71
3475	1936-37	2-2-37	10A	10	12.2	10.2	0.3	21.1	0	106	6,600	5.61	12.03	10.2	109.1	1,113	10.1	237.6	2,602	3	1.0	12.3	68	67
3475	1936-37	2-2-37	12A		..	..	..	..	29	183	7,000	5.00	13.02	11.8	93.4	1,102	11.8	214.0	2,525	4	1.2	13.6	67	69
3475	1936-37	3-2-37	14B		..	..	..	..	22	180	8,500	6.03	16.85	14.3	91.5	1,208	14.2	184.4	2,618	4	1.0	16.3	66	70
3925	1937-38	31-1-38	10A	10	12.6	9.3	0.3	21.0	0	203	6,800	5.60	12.03	9.9	66.1	931	9.0	225.2	2,250	1	1.0	12.2	67	69
3925	1937-38	1-2-38	12A		..	..	..	..	15	103	7,100	5.11	13.02	11.0	71.0	956	11.5	108.4	2,292	4	0.8	13.5	61	69
3925	1937-38	1-2-38	12B		..	..	..	..	15	106	7,700	5.23	14.08	11.8	92.1	1,087	11.8	108.4	2,311	4	1.0	14.2	65	63

* Diameter of ring frame front roller— $\frac{7}{8}$ ". Diameter of rings— $\frac{1}{16}$ ".
† This is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

4.—NANDED COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
669	Nanded.	1929-30.	2195	Nanded.	1933-34.
1003	..	1930-31.	2712	..	1934-35.
1338	..	1931-32.	3111	..	1935-36.
1725	..	1932-33.	3517	..	1936-37.

1. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Sautcher (3 times).

1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Sautcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		NANDED							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	..	Creamy-white, brightish.	White, creamy to yellowish.	Creamy-white.	Creamy-white; dull.	Creamy-white.	Creamy-white.	White.	Creamy-white; dullish.
Cleanliness	..	Leaves a little leafy.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.	Leaves a little leafy, some what stained.
Feel	..	Good-bodied.	..	..	Soft.	Good.	Good.	Good.	Good.
Ginning and Spinning	..	Fairly well planned.	Well planned.	..	Well planned.	Well planned.	Well planned.	Well planned.	..
Seeds	..	11.0	12.0	Some cut seed.	0.01% plumped and unplumped.	..	..	Contains a few full clean seeds.	Contains a few full clean seeds.
Card Sliver	..	..	Thin.	A little leafy.	Almost clean.	Clean.	Slightly leafy.	A little leafy.	A little leafy.
Card Web	..	A little neppy.	Very good.	Good.	Neppy and even.	Even.	A little neppy.	Good.	A little neppy.
Weight of leaf of strip	..	17.0 grams.	12.3 grams.	17.5 grams.	17.1 grams.	16.3 grams.	21.6 grams.	11.3 grams.	15.1 grams.
Remarks	..	..	..	..	..	..	..	..	..

(b) Yarn :—

		NANDED.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	..	Clean.	Clean.	A little leafy.	Almost clean.	A little leafy.	Fairly leafy.	Almost clean.	A little leafy.
Evenness	..	Even.	Even in lower counts.	Even.	Even.	Even in the two lower counts.	Even.	Fairly even.	Fairly even.
Neppiness	..	A little neppy.	A little neppy.	Almost free of nepp.	Practically free of nepp.	Some what neppy.	Neppy.	A little neppy.	Neppy.
Slubbiness	..	..	Higher counts a little slubby.	..	..	..	A little slubby.	..	..
Remarks	..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 4 on page 12.

II.—REPORT OF THE STANDARDS COMMITTEE FOR NANDED.

11

NANDED.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	F. G. Broach No. 2.	F. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1934 delivery.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1935 delivery.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1936 delivery.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2.	
Class	Fully good to fine.	Fully good.	Fine.	Fine.	Fully good.	Fine.	Fine.	Good.	
Colour	A little dull.	Greyish.	Considerably Bluish White and stains.	Whitish.	Greyish white.	Greyish white.	Dull whitish.	White.	
Staple Length	15 16 inch.	5/8 inch.	3/4 inch.	7/8 inch.	Full 7/8 inch.	7 8 inch.	7/8 inch.	7/8 inch.	
Staple Strength	Very strong.	Fair.	Fair.	Good.	Good.	Good.	Fair to good.	Good.	
Regularity	Regular.	Irregular.	Irregular.	A bit irregular.	Regular.	Irregular.	Irregular.	Slightly Irregular.	
Value above or below contract rate	Rs. 40 on F. G. Broach April/May.	Rs. 31 off.	Rs. 15 on.	Rs. 15 on.	Rs. 25 on.	Rs. 40 on.	Rs. 25 on.	Rs. 20 on.	
Basis .. .. .	.. .. .	Rs. 222.	Rs. 175.	Settlement rate of F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1933 delivery Rs. 177.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1934 delivery Rs. 201.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1935 delivery Rs. 222.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May 1936 delivery Rs. 189.	F. G. M. G. Broach F. G. M. G. Broach H. C. No. 2. April/May delivery Rs. 216.	
Date of Valuation	28-1-30.	5-3-31.	9-5-32.	25-3-33.	15-3-34.	26-3-35.	2-3-36.	16-3-37.	
Remarks	Not so silky or waxy as F. G. M. G. Latur.	Black leaf.	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	With some black leaf.	

Table 4.—SPINNING TEST RESULTS FOR NANDED COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										RELATIVE HOMOGENEITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	LBS.			BALKING.			Counts Actual.	Work of Rupture (inch-lb)	Count-Work Product.	Lyoneses Class.	Kcps per yard.	Turns per Inch Actual	Spinning Room.	Drawing Room.
															Counts Actual.	Strength (lbs)	Count-Stringth Count-Product.											
609	Nanded ..	1929-30	6-2-30	20 A	10	11.5	9.6	0.2	22.9	30	194	..	5.21	17.98	20.0	81.8	1,630	20.4	110.2	2,132	4	4.2	17.2	81	35	55		
609	Nanded ..	1929-30	7-2-30	20 B		..	..	..	..	0	193	..	6.32	20.23	10.8	81.4	1,671	10.8	121.0	2,175	4	1.2	19.2	82	60	56
1003	Nanded ..	1930-31	14-3-31	12	9	13.9	8.7	0.7	21.9	10	189	7,100	4.07	13.02	12.1	77.0	932	12.1	205.8	2,100	31	1.7	13.4	81	63	67		
1003	Nanded ..	1930-31	10-3-31	10 A		..	..	..	..	47	166	7,350	5.38	15.97	15.8	11.6	677	16.1	118.6	1,900	5	3.2	15.3	80	63	66
1003	Nanded ..	1930-31	16-3-31	16 B		..	..	..	..	60	172	8,800	5.53	18.10	16.5	50.1	617	16.8	119.1	2,006	6	2.2	17.5	82	65	66
1838	Nanded ..	1931-32	10-5-32	12	10	9.7	10.0	0.5	19.1	87	187	7,350	5.31	13.92	12.1	65.3	700	11.9	186.0	2,313	3	1.2	13.4	90	67	64		
1839	Nanded ..	1931-32	18-5-32	16		..	..	..	..	125	178	8,000	5.66	17.98	10.2	50.0	907	10.0	128.8	2,061	4	1.5	17.4	91	71	66
1725	Nanded ..	1932-33	3-4-33	16	10	13.8	9.7	0.4	22.5	21	164	8,160	5.43	15.37	15.8	98.1	1,330	16.8	177.2	2,800	3	2.0	16.2	86	65	63		
1725	Nanded ..	1932-33	3-4-33	20		..	..	..	..	83	186	9,200	5.43	17.05	10.8	72.8	1,441	20.2	120.2	2,128	4	1.0	17.2	88	65	68
1725	Nanded ..	1932-33	5-4-33	24		..	..	..	..	82	171	9,200	5.54	10.73	23.9	64.1	1,300	24.1	99.0	2,100	1	1.5	18.9	87	64	70
2195	Nanded ..	1933-34	20-3-34	20	10	13.8	10.0	0.6	21.6	47	193	9,430	6.10	17.08	10.8	83.3	1,641	19.5	131.1	2,621	3	2.6	17.2	85	69	72		
2195	Nanded ..	1933-34	22-3-34	24		..	..	..	..	60	170	9,460	6.02	10.73	23.8	62.1	1,478	21.0	104.6	2,486	4	3.5	19.1	94	71	72
2195	Nanded ..	1933-34	22-3-34	30		..	..	..	..	73	140	9,000	7.57	23.11	30.2	11.0	1,250	30.0	86.8	2,172	0	3.0	22.2	86	70	70
2712	Nanded ..	1934-35	6-4-35	20	10	11.7	12.8	0.5	23.4	36	192	9,100	5.83	16.98	20.4	63.7	1,509	20.0	123.2	2,164	3	1.3	17.2	88	69	67		
2712	Nanded ..	1934-35	8-4-35	24		..	..	..	..	15	174	9,000	5.41	10.73	21.1	51.1	1,392	22.0	106.0	2,127	1	4.2	18.9	93	70	62
2712	Nanded ..	1934-35	8-4-35	30		..	..	..	..	43	139	8,850	6.81	23.26	20.7	45.7	1,337	20.7	85.2	2,530	6	5.8	22.6	91	70	68
3111	Nanded ..	1935-36	9-3-36	20	10	9.1	8.5	0.3	17.0	5	190	9,250	6.10	17.98	20.2	87.6	1,770	20.6	127.1	2,621	4	1.8	16.8	82	64	64		
3111	Nanded ..	1935-36	10-3-36	24		..	..	..	..	0	171	9,400	5.78	10.73	23.7	67.2	1,963	24.3	108.2	2,620	4	1.2	18.8	80	67	64
3111	Nanded ..	1935-36	10-3-36	30		..	..	..	..	17	138	9,400	7.29	21.86	30.7	44.3	1,960	30.5	91.1	2,481	5	2.2	21.1	81	67	63
3547	Nanded ..	1936-37	5-4-37	20	10	15.1	11.2	0.6	25.9	16	192	9,400	6.10	17.98	20.1	78.3	1,574	20.2	126.8	2,561	3	3.6	17.2	83	65	65		
3547	Nanded ..	1936-37	1-4-37	24		..	..	..	..	0	172	9,500	5.36	10.73	23.4	62.6	1,466	24.1	101.0	2,566	4	2.5	18.8	84	69	66
3547	Nanded ..	1936-37	3-4-37	30		..	..	..	..	30	160	9,450	6.70	21.86	20.0	39.0	1,161	31.3	82.0	2,567	5	2.8	20.9	90	69	68

* Diameter of ring frame front roller—1 inch. Diameter of rings—11 inch.

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—LATUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for 100 g, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1002	Latur	.. 1930-31.	2713	Latur	.. 1934-35.
1339	„	.. 1931-32.	3112	„	.. 1935-36.
1726	„	.. 1932-33.	3755	„	.. 1936-37.
2194	„	.. 1933-34.	4037	„	.. 1937-38.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

LATUR.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Creamy-white.	Creamy	Dullish white to creamy-white.	Creamy-white.	White to creamy-white; brightish.	White.	Creamy-white.	White.
.. ..	Leafy; stained.	Very leafy (large size leaf); slightly stained.	Very leafy	Leafy; a little stained.	Leafy.	Very leafy; a little stained.	Very leafy.	Very leafy; an occasional stain.
.. ..	Soft silky.	..	Soft.	Good.	Good.	Good.	Fair.	Good.
and Nep.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	..	..
.. ..	1.5%.	1.2%.	..	..	..	..	Some seeds.	Few unginned 0.53%.
er ..	Clean.	Almost clean.	Somewhat leafy.	Fairly clean.	Almost clean.	Clean.	Leafy	Leafy.
.. ..	Good.	Good.	Even, nep-free and shed much leaf.	Good.	Fairly good.	Even; nep-free.	Nep-py	A little nep-py.
f ten flat	17.6 grams.	17.9 grams.	19.5 grams.	20.8 grams.	20.7 grams.	13.7 grams.	31.6 grams.	20.6 grams.
.. ..	..	..	Gave a leafy up.	..	..	..	..	..

(b) *Yarn :—*

LATUR.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Fairly clean.	Almost clean.	A little leafy.	Fairly clean.	Clean.	A little leafy.	Fairly clean.
.. ..	Even.	Even.	Even.	Even in the two lower counts.	Even.	Fairly even.	Fairly even.	Even in 16 only.
.. ..	A little nep-py.	Almost free of ntp.	Practically free of nep.	Somewhat nep-py.	A little nep-py.	Slightly nep-py.	Nep-py.	A little nep-py.
.. ..	..	..	Shows an occasional stub.	..	Slightly stubby.	..	..	..
..

*Spinning Test Details and Results :—*See Table 5 on page 15.

II.—REPORT OF THE STANDARDS COMMITTEE FOR LATUR.

		LATUR.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contracts valued under		F. G. Branch No. 2	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, April/May 1934 delivery.	F. G. M. G. Branch No. 2, April/May 1935 delivery.	F. G. M. G. Branch No. 2, April/May 1936 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1937 delivery.	F. G. M. G. Branch No. 2, April/May 1938 delivery.		
Glass .. ..	..	Fully good.	Fully good to fine.	Fine.	Fully good.	Strict fine.	Fine.	Good to fully good.	Fully good to fine.		
Colour .. ..	..	Dull creamy.	Considerably bluish white and striae.	White.	Gray.	Grayish white.	Whitish.	Grayish white.	Dull white.		
Staple Length .. ..	..	Barely 7/8 inch.	Full 7/8 inch.	7/8 inch.	7/8 inch.	27/32 inch.	7/8 inch.	13/16 inch.	3/4 inch.		
Staple Strength .. ..	..	Good.	Fair.	Fair.	Good.	Good.	Good.	Moderate.	Weak.		
Regularity .. ..	..	Irregular.	Fairly regular.	Irregular.	Irregular.	Regular.	Irregular.	Irregular.	Irregular.		
Value above or below contract rate ..	..	Rs. 15 off.	Rs. 30 on.	Rs. 12 on.	Rs. 20 on.	Rs. 25 on.	Rs. 30 on.	Rs. 5 off.	Rs. 10 on.		
Prices .. ..	..	Rs. 222.	Rs. 175.	Settlement rate of F. G. M. G. Branch No. 2, April/May 1933 delivery Rs. 177.	Rs. 200.	F. G. M. G. Branch No. 2, April/May 1936 delivery Rs. 222.	F. G. M. G. Branch No. 2, April/May 1936 delivery Rs. 180.	F. G. M. G. Branch No. 2, July/Aug. 1937 delivery Rs. 180.	F. G. M. G. Branch No. 2, April/May 1938 delivery Rs. 163.		
Date of Valuation .. ..	..	5-3-31.	9-3-32.	25-3-33.	8-3-34.	26-3-35.	2-3-36.	9-3-37.	26-4-38.		
Remarks .. ..	..	Slightly stained and black leafy.	..	..	..	..	..	..	..

Table 5.—SPINNING TEST RESULTS FOR LATUR COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.).		RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	I.R.A.			BALLISTIC.			Spinning Room.	Testing Room.	Spinning Room.	Testing Room.		
															Count-Actual.	Strength (lb.).	Count-Strength Product.	Counts Actual.	Worked Rupture (inch-lbs.)	Count-Work Product.					Steps per yard.	Turns per Inch, Actual.
1002	Latur	1930-31	14-3-31	20	10	13.1	9.5	0.5	21.8	0	195	9150	6.33	14.08	20.2	69.3	1102	20.0	122.2	2111	31	3.5	17.1	82	69	69
1002	Latur	1930-31	14-3-31	24A		..	..	..	..	20	175	9175	0.76	10.73	21.8	53.8	1240	21.0	97.6	2100	43	4.0	17.7	81	67	66
1002	Latur	1930-31	10-3-31	24B		..	..	..	..	36	180	10300	0.89	20.74	24.1	55.0	1312	21.0	97.2	2120	41	3.7	10.7	80	64	68
1339	Latur	1931-32	18-5-32	20	10	11.9	10.1	0.6	21.2	17	194	9350	0.31	17.08	20.1	65.2	1311	20.2	121.0	2411	4	1.5	17.4	90	71	66
1339	Latur	1931-32	18-5-32	24A		..	..	..	..	10	169	9300	0.94	10.73	23.7	51.4	1214	23.0	92.4	2376	4	2.0	10.0	92	66	67
1339	Latur	1931-32	10-5-32	24B		..	..	..	..	36	174	9000	7.09	20.74	23.6	55.5	1317	24.0	101.2	2520	5	2.0	20.0	91	65	66
1726	Latur	1932-33	9-1-33	20	10	10.6	10.5	0.6	20.5	99	190	9200	5.07	17.98	19.8	72.0	1126	20.0	125.4	2508	4	1.5	17.4	85	65	69
1726	Latur	1932-33	5-1-33	24A		..	..	..	..	86	171	9200	0.89	19.73	23.9	49.2	1176	21.1	102.4	2464	4	1.8	10.1	87	61	70
1726	Latur	1932-33	5-4-33	24B		..	..	..	..	100	184	10600	0.80	20.74	24.0	55.5	1322	23.7	104.2	2446	4	1.2	20.1	87	65	69
2194	Latur	1933-34	20-3-34	20	10	11.4	12.3	0.6	25.4	73	193	9550	6.22	17.93	20.3	72.2	1466	20.3	121.1	2525	3	2.2	17.2	85	69	72
2194	Latur	1933-34	22-3-34	24		..	..	..	..	95	176	9150	5.80	19.73	23.9	60.5	1446	23.6	106.6	2516	4	2.8	18.8	81	71	71
2194	Latur	1933-34	22-3-34	30		..	..	..	..	33	110	9000	7.35	23.11	23.6	44.2	1304	20.7	92.4	2447	6	2.2	22.1	80	70	71
2713	Latur	1934-35	8-4-35	20	10	10.8	11.0	0.2	20.8	0	194	9000	5.95	17.98	20.3	70.4	1629	20.6	110.0	2075	3	1.0	17.1	83	69	61
2713	Latur	1934-35	9-4-35	24		..	..	..	..	22	176	9000	5.80	19.73	24.1	62.6	1569	21.6	106.0	2911	4	2.0	19.0	81	65	68
2713	Latur	1934-35	9-4-35	30		..	..	..	..	17	135	8750	7.69	23.59	30.1	49.3	1444	30.7	99.0	2763	5	1.8	22.7	83	70	67
3112	Latur	1935-36	10-3-36	20	10	11.6	9.2	0.3	19.9	26	190	9150	5.80	17.94	20.3	63.3	1283	20.3	118.8	2412	4	1.4	17.3	78	61	63
3112	Latur	1935-36	10-3-36	24		..	..	..	..	11	171	9350	6.38	19.73	23.9	47.2	1124	24.4	96.1	2432	5	1.5	18.9	80	63	63
3735	Latur	1936-37	18-8-37	20	10	16.3	20.1	0.1	32.4	36	290	9600	6.07	17.98	20.3	61.6	1259	20.4	121.0	2520	4	3.6	17.0	86	71	75
3735	Latur	1936-37	19-9-37	24		..	..	..	..	82	191	9750	5.94	19.73	24.5	42.2	1044	27.0	98.6	2461	5	4.5	18.9	87	71	72
4037	Latur	1937-38	5-5-38	10	10	16.4	12.1	0.5	26.8	6	196	8800	5.68	15.97	10.3	83.6	1363	16.5	109.0	2755	3	2.0	15.4	91	69	63
4037	Latur	1937-38	5-5-38	20		..	..	..	..	16	199	9400	6.07	17.08	20.2	60.2	1216	20.3	118.9	2412	4	2.2	17.4	91	68	68

* Diameter of ring frame front roller— $\frac{1}{8}$ inch. Diameter of ring— $\frac{1}{16}$ inch.

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

6.—MUTTIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1000	Muttia	Bhavnagar	1930-31	2714	Muttia	Bhavnagar	1934-35
1337	"	Botol	1931-32	3113	"	Amroli	1935-36
1885	"	Gondal	1932-33	3546	"	Veraval	1936-37
2193	"	Bhavnagar	1933-34	4073	"	Bhavnagar	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Tridged dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		MUTTIA.							
		1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Colour		Dull creamy white	Creamy-white	Dullish creamy white	White creamy	White to creamy; dullish	White to creamy; white	White to creamy; white	White to creamy; white
Condition		Stained leafy	Very somewhat stained; very leafy—sand-like leaf	Leafy	Stained; leafy	Very stained; leafy	Very stained; leafy	Very leafy	Very leafy; a little stained
Feel		Power		Softish	Rough	Roughish	Somewhat softish	Fairly good	Roughish
Ginning and Separation						Somewhat knotted	Fairly well-ginned		Well-ginned
Seed		0.75% seeds	1.4% and ginned and	1.5% unginned	Contains many unginned seeds			Contains some ginned and unginned and dust.	Some ginned and unginned and dust.
Card bliver		Fairly clean	Clean	Clean	Almost clean	Almost clean	Almost clean	Fairly clean	Fairly clean
Card Web		Good	Good	Good	Fairly good	Fairly good	Good	A trifle neppy.	Good; quite free of neps.
Weight of 10 flat strips		12.5 grams	15.5 grams	21.9 grams	19.0 grams	18.1 grams	13.8 grams	16.3 grams	14.8 grams
Remarks		Very wast	Responded well to treatment.					Abnormally wasty in the blow-room.	

(b) Yarn :—

		MUTTIA.							
		1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Cleanliness		Clean	Clean	Clean	Clean	Almost clean	Clean	Fairly clean	Clean
Evenness		Even to fairly even	Somewhat uneven	Fairly even in the lower count.	Fairly even	Even	Even	Fairly even	Even
Neppiness		Fairly nep-free.	Practically free of nep.	Free of nep	Nep-free	Free of nep	Almost nep-free	Free of nep	Free of nep.
Slubbiness			Fairly slubby.	A trifle slubby.		A trifle slubby.			
Remarks									

3. Spinning Test Details and Results :—See Table 6 on page 18.

II.—REPORT OF THE STANDARDS COMMITTEE FOR MUTTIA.

MUTTIA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	Fine Oomra No. 3.	F. G. M. G. Broach No. 2.	Fine M. G. Oomra Hedge Contract No. 3 Dec./Jan. 1934 delivery.	Fine M. G. Oomra Hedge Contract No. 3 March 1934 delivery.	Fine M. G. Oomra Hedge Contract No. 3 May 1935 delivery.	Fine M. G. Oomra Hedge Contract No. 3 March 1936 delivery.	Fine M. G. Oomra H. C. No. 3.	Fine M. G. Oomra H. C. No. 3 May 1938 delivery.	
Class	Fully good to fine.	Fully good to fine.	Superfino	Fine to superfine	Fine to superfine	Strict Fine	Fully good	Superfino.	
Colour	Dull	Brownish ; some-what stained.	Whitish	Whitish	Brownish-white	Whitish dull	Dull grey	Creamy-white.	
Staple Length	$\frac{1}{2}$ inch	$\frac{1}{2}$ inch	$\frac{1}{2}$ inch	$\frac{3}{4}$ inch	$\frac{1}{2}$ inch	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch	$\frac{1}{2}$ inch.	
Staple Strength	Fair	Weak	Fair	Good	Good	Fair	Fair	Fair.	
Regularity	Regular	Irregular	Regular	Regular	Fair	Regular	Regular	Fair.	
Value above or below contract rate	Rs. 5 off	Rs. 20 off	Rs. 10 off	Rs. 10 off	Rs. 10 off	Rs. 7 off	Rs. 25 off	Rs. 15 off.	
Basis	Rs. 188	Rs. 175	Fine M. G. Oomra No. 3 Dec./Jan. 1934 dely. Rs. 199.	Fine M. G. Oomra H. C. No. 3 March 1934 dely. Rs. 176.	Fine M. G. Oomra H. C. No. 3 May delivery Rs. 198.	Fine M. G. Oomra Hedge Contract No. 3 March delivery Rs. 170.	Fine M. G. Oomra H. C. No. 3 March delivery Rs. 231.	Fine M. G. Oomra H. C. No. 3 May 1938 delivery Rs. 142.	
Date of Valuation	5-3-31	9-5-32	26-7-33	8-3-34	26-3-35	2-3-36	10-3-37	10-5-38.	
Remarks									

Table 6.—SPINNING TEST RESULTS FOR MUTTIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WEAVE PERCENTAGES.				Weight of Sample, lbs.	RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TENSION (LBS.)	Spinning Room.	Winding Room.	RELATIVE HUMIDITY (P.C.).
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †		Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	L.F.A.			HALSTICK			Keps per Yard.	Turns per Inch Actual.						
														Counts Actual	Strength (lbs)	Count Strength	Counts Actual	W o r k of Sample (inch lb)	Count Work								
1000	Muttia ..	1930-31	12-3-31	17.7	8.5	0.5	25.0	0	107	6900	5.31	12.03	9.8	112.2	1100	9.7	229.0	2227	3	2.2	12.0	80	07	27	26	27	
1000	Muttia ..	1930-31	12-3-31	..	..	..	..	27	170	7500	5.42	14.08	13.6	54.3	755	13.8	135.2	1806	5	2.7	11.4	82	07	08	08	08
1000	Muttia ..	1930-31	13-3-31	..	..	..	..	53	100	8750	5.42	10.85	11.4	68.3	983	14.3	135.0	1930	5	3.5	10.3	82	09	05	05	05
1337	Muttia ..	1931-32	14-5-32	18.3	9.0	0.8	26.7	118	107	6800	5.55	12.03	10.0	65.0	650	10.3	185.0	1912	1	1.2	12.2	90	09	09	08	08	
1337	Muttia ..	1931-32	16-5-32	..	..	..	..	80	100	7700	5.43	14.08	11.4	80.3	615	11.3	180.8	2110	4	1.2	11.0	90	07	00	00	00
1337	Muttia ..	1931-32	16-5-32	..	..	..	..	164	176	8300	6.07	16.85	11.0	38.9	925	14.4	141.1	2070	5	1.0	10.5	90	00	00	00	00
1885	Muttia ..	1932-33	20-8-33	13.3	12.2	0.5	24.2	127	183	6400	5.37	12.03	9.7	73.5	732	9.7	214.8	2084	1	0.5	12.0	80	74	70	70	70	
1885	Muttia ..	1932-33	20-8-33	..	..	..	..	82	202	7550	5.30	13.58	10.0	89.0	880	10.0	211.0	2110	1	0.2	13.1	85	71	00	00	00
1885	Muttia ..	1932-33	20-8-33	..	..	..	..	270	187	7550	5.50	11.08	12.3	59.8	736	12.6	174.0	2192	5	0.5	14.0	86	72	00	00	00
2103	Muttia ..	1933-34	20-3-34	10.6	12.8	0.5	27.7	26	186	6400	5.57	12.03	10.1	71.7	724	10.1	202.0	2040	1	0.5	12.3	84	69	71	71	71	
2103	Muttia ..	1933-34	20-3-34	..	..	..	..	87	177	6700	5.08	13.02	11.8	55.1	654	12.1	168.1	2038	1	0.8	13.7	81	69	00	00	00
2103	Muttia ..	1933-34	20-3-34	..	..	..	..	80	188	7500	5.81	14.08	12.0	60.1	703	12.2	174.0	2123	4	0.5	14.5	84	69	00	00	00
2714	Muttia ..	1934-35	9-4-35	15.8	10.4	0.2	24.7	18	183	6200	5.34	12.03	10.2	106.2	1111	10.3	231.0	2385	3	0.5	12.0	82	64	00	00	00	
2714	Muttia ..	1934-35	10-4-35	..	..	..	..	0	180	6900	5.48	13.02	12.0	91.2	974	12.2	106.0	2435	4	0.8	13.4	83	70	68	68	68
2714	Muttia ..	1934-35	10-4-35	..	..	..	..	0	187	7500	5.81	14.08	11.9	105.1	1251	11.9	201.0	2398	4	0.5	14.2	83	70	71	71	71
3113	Muttia ..	1935-36	12-3-36	17.8	9.3	0.2	25.6	0	106	6900	5.21	12.03	10.2	87.7	805	10.3	206.2	2155	3	1.0	12.2	83	64	00	00	00	
3113	Muttia ..	1935-36	19-3-36	..	..	..	..	22	180	6950	5.43	13.02	12.5	65.1	690	12.4	182.8	2207	4	1.2	13.4	87	66	04	04	04
3113	Muttia ..	1935-36	19-3-36	..	..	..	..	0	184	7450	5.43	14.03	12.6	60.1	830	12.1	200.8	2130	4	1.0	14.1	88	66	71	71	71
3546	Muttia ..	1936-37	6-4-37	21.7	11.0	0.3	31.2	19	204	7000	5.00	12.03	10.2	53.1	670	0.6	238.4	2360	4	1.0	12.1	86	65	07	07	07	
3546	Muttia ..	1936-37	6-4-37	..	..	..	..	15	186	7200	5.43	13.02	12.2	72.7	887	11.8	194.1	2204	4	1.2	13.5	85	66	07	07	07
3546	Muttia ..	1936-37	9-4-37	..	..	..	..	22	104	7700	5.54	14.08	12.3	85.1	1047	11.0	196.8	2342	1	1.0	11.2	84	67	08	08	08
4073	Muttia ..	1937-38	27-5-38	14.7	9.8	0.1	23.2	0	211	6500	5.60	11.31	8.3	98.6	819	8.2	291.0	2361	2	0.5	10.0	91	69	09	09	09	
4073	Muttia ..	1937-38	27-5-38	..	..	..	..	0	103	6600	5.32	12.63	10.1	76.2	708	10.3	229.0	2244	3	0.5	11.8	91	69	73	73	73
4073	Muttia ..	1937-38	27-5-38	..	..	..	..	0	208	7500	5.43	13.68	10.1	105.0	1070	10.2	229.0	2342	3	0.8	12.0	91	69	71	71	71

* The ring frame front roller diameter—14". Diameter of ring—14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—PUNJAB-AMERICAN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1352	Punjab-American	Khanewal	1931-32
1882	"	Burewala	1932-33
2237	"	Khanewal	1933-34
2732	"	Chinchwatni	1934-35
3114	"	Phularwan	1935-36
3566	"	Khanpur	1936-37
3938	"	Mian Channu	1937-38

1. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	PUNJAB-AMERICAN.						
	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; bright.	Creamy-white to white.	White.
Cleanliness	Leafy; stained noticeably.	Somewhat leafy.	A little leafy.	Stained; fairly leafy.	A little leafy.	Fairly clean.	Fairly clean.
Feel	Softish.	Good.	Smooth good.	Good.	Good smooth.	Good.	Good.
Ginning and neppliness	Fairly well-ginned.	Well-ginned.	Well-ginned but a trifle knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	1.1% unginned.	..	..	..	..	..	Some undeveloped.
Card Sliver	A little leafy.	Almost clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.
Card Web	Somewhat neppy.	Good.	A little neppy.	Good.	Good.	Good; nep-free.	Good; almost nep-free.
Weight of 10 flat strips	21.6 grams.	23.5 grams.	21.5 grams.	24.5 grams.	13.7 grams.	17.4 grams.	19.1 grams.
Remarks .. ..	..	..	..	..	..	..	..

(b) Yarn :—

	PUNJAB-AMERICAN.						
	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Fairly clean.	Clean.	Clean.	Almost clean.	Clean.	Slightly leafy.	Almost clean.
Evenness	Somewhat uneven.	Fairly even.	Even in the two lower counts.	Fairly even.	Even.	Fairly even.	Fairly even.
Neppliness	A little neppy.	Practically free of nep.	Free of nep.	A little neppy.	Almost nep-free.	Almost free of nep.	Fairly free of nep.
Slubbiness	Slabby.	A trifle slubby.	..	Somewhat slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 7 on page 21.

II.—REPORT OF THE STANDARDS COMMITTEE FOR PUNJAB-AMERICAN.

PUNJAB-AMERICAN.							
	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under
Class
Colour
Staple Length
Staple Strength
Regularity
Value above or below contract rate
Reels
Date of Valuation
Remarks

Table 7.—SPINNING TEST RESULTS FOR PUNJAB-AMERICAN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.).		RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Evenness class.	Keps per yard.	Turns per Inch, Actual.	Spinning Room.	Finishing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inches).	Count-Work Product.					
1352	Punjab/ American.	1931-32	6-6-32	16A	10	11.7	11.5	0.6	22.3	16	192	8350	5.10	15.07	15.8	82.8	1308	15.7	182.0	2837	1	2.2	15.5	91	65
1352	"	1931-32	7-6-32	20A		..	..	..	..	105	189	9200	6.34	17.98	20.2	51.9	1019	20.4	112.1	2293	5	2.0	17.1	93	70
1822	Punjab/ American.	1932-33	18-8-33	16A	10	8.9	13.5	0.5	21.5	213	180	8000	5.11	15.97	15.8	63.1	997	15.5	170.0	2635	4	1.2	15.1	86	70
1822	"	1932-33	19-8-33	20A		..	..	..	..	223	170	8400	5.63	17.03	20.1	37.8	760	10.8	112.0	2218	5	1.6	17.0	87	70
2237	Punjab/ American.	1933-34	10-1-34	16A	10	7.5	10.7	0.6	17.0	21	193	8700	5.92	15.07	16.1	85.7	1371	15.8	188.2	2674	1	0.8	15.3	87	66
2237	"	1933-34	18-1-34	20A		..	..	..	..	57	189	9200	5.10	17.98	19.3	70.1	1353	19.5	140.1	2738	1	0.9	17.4	87	65
2237	"	1933-34	18-1-34	21B		..	..	..	..	80	170	9500	6.25	20.74	21.3	51.1	1219	24.0	90.6	2450	6	1.0	19.8	87	67
2732	Punjab/ American.	1934-35	12-6-35	12	10	7.8	11.8	0.5	19.1	73	171	6500	1.32	13.02	12.1	50.8	704	12.2	101.0	2367	1	1.0	13.1	90	69
2732	"	1934-35	5-6-35	16A		..	..	..	..	55	160	7100	5.51	15.07	15.9	38.9	697	15.7	122.8	1928	1	1.2	15.1	90	66
2732	"	1934-35	4-6-35	16B		..	..	..	..	48	176	9700	5.76	17.98	16.8	45.8	769	16.5	127.0	2105	1	1.0	16.9	90	67
3114	Punjab/ American.	1935-36	12-3-36	16A	10	8.0	10.0	0.3	18.0	0	167	8650	5.55	15.97	16.1	102.1	1611	16.0	204.0	3261	3	1.0	15.5	81	60
3114	"	1935-36	12-3-36	20A		..	..	..	..	10	190	9350	5.31	17.08	20.0	76.3	1526	19.9	141.6	2818	3	1.0	17.5	80	62
3114	"	1935-36	12-3-36	21A		..	..	..	..	27	171	9300	6.31	19.73	21.1	58.2	1403	23.6	115.6	2723	4	1.2	19.0	82	72
3566	Punjab/ American.	1936-37	15-4-37	16A	10	8.5	10.2	0.1	18.1	18	193	8350	5.37	15.97	16.1	90.7	1187	16.1	207.0	3312	3	1.2	15.1	90	63
3566	"	1936-37	11-4-37	20A		..	..	..	..	36	192	8500	5.00	17.08	20.4	70.6	1410	20.2	148.1	3006	3	1.0	17.1	89	70
3566	"	1936-37	15-4-37	21A		..	..	..	..	18	180	9500	5.84	19.73	21.9	53.2	1271	23.5	126.6	2710	1	1.2	19.0	91	69
3638	Punjab/ American.	1937-38	8-2-38	16A	10	9.1	11.1	0.6	19.9	12	202	8650	5.73	15.97	16.1	85.3	1473	16.0	163.0	2618	3	1.0	15.1	80	63
3938	"	1937-38	9-2-38	20A		..	..	..	..	73	195	9500	5.94	17.08	20.2	61.9	1550	19.9	116.1	2316	4	1.0	17.2	82	66
3975	"	1937-38	9-2-38	20B		..	..	..	..	57	198	10200	6.05	19.26	20.2	71.2	1199	19.9	122.2	2432	1	1.5	18.6	81	66

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs., or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

The performance of the 1931-33 sample is much below the average for this cotton.

8.—BROACH COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for long, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1351	Broach	Miyagam	1931-32.
1782	,,	Dabhoi	1932-33.
2235	,,	Palej	1933-34.
2731	,,	Broach	1934-35.
3263	,,	Palej	1935-36.
3542	,,	Amod	1936-37.
3543	,,	Palej	1936-37.
4060	,,	Broach	1937-38.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

		BROACH.							
		1931-32.	1932-33	1933-34.	1934-35	1935-36.	1936-37.		1937-38.
							Amod.	Palej.	
..	..	White to creamy-white; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White; brightish.	White to creamy-white.	White.	White to creamy-white; bright.	White to creamy-white.
ness ..	..	Fairly clean.	Clean.	Clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.	Clean.	Fairly clean.
..	..	Good-bodied.	Good.	Smooth and bodied.	Good.	Softish.	Good bodied.	Softish.	Fairly good.
and Neppt.	..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..	..	1% unginned.	2.2% unginned.	..	..	..	..	..	A few unginned.
iver..	..	Almost clean.	Clean.	Clean.	Almost clean.	Clean.	A little leafy.	Clean.	Fairly clean.
eb ..	..	Good.	Even and nep-free.	Good.	Good.	Good.	Almost free.	Good.	Good; free of nep.
of ten flat	..	16.2 grams.	15.4 grams.	16.9 grams.	21.9 grams.	18.8 grams.	19.4 grams.	14.0 grams.	15.7 grams.
..

(b) Yarn :—

		BROACH.							
		1931-32.	1932-33	1933-34.	1934-35.	1935-36.	1936-37		1937-38.
							Amod.	Palej	
ness ..	..	Clean.	Clean.	Fairly clean.	Almost clean.	A little leafy.	Fairly clean.	Slightly leafy.	A little leafy.
..	..	Even.	Even.	Fairly even.	Even.	Fairly even.	Even.	Fairly even.	Even.
ness ..	..	A trifle neppy.	Free of nep.	Almost free of nep.	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.	Almost free of nep.
ness ..	..	..	..	..	A little slubby.	Slightly slubby.	..	..	..

Spinning Test Details and Results :—See Table 8 on page 24.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BROACH COTTON.

[illegible]

Table 8.—SPINNING TEST RESULTS FOR BROACH COTTON.

Sample No.	Cotton.	Section.	Date of spinning.	Counts Normal.	Weight of Sample, lbs.	WASTE PERCENTAGES				RING FRAME PARTICULARS*				YARN TEST RESULTS.				TOPIER VALUE (C.P.)				Spinning Room.	Tearing Room.	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller speed, R. P. M.	Spindle speed, R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lb.)	Count Strength	Counts Actual.	Work of Rupture (lb.-in.)	Count-Product	Evenness Class.			Reps per yard	Turns per inch Actual.
1351	Broach	1031-32	6-6-32	12	10	0.0	8.0	0.0	15.0	83	206	7800	1.15	13.02	12.2	92.5	1125	12.3	211.0	2000	3	2.5	13.3	03
1351	Broach	1031-32	6-6-32	10A						83	186	8000	5.32	15.07	10.0	57.0	920	10.2	190.8	2051	4	2.0	15.3	00
1742	Broach	1032-33	20-5-33	12	10	7.5	8.9	0.1	16.0	51	205	7800	5.00	13.02	12.7	90.5	1220	12.0	207.0	2016	3	1.0	13.4	03
1742	Broach	1012-33	20-5-33	10A						12	177	7800	5.31	15.07	15.0	71.0	1143	10.4	135.0	2352	4	1.5	15.5	70
2215	Broach	1014-34	16-4-34	12	10	0.2	10.0	0.5	16.0	7	205	7000	4.00	13.02	12.3	90.1	1223	12.2	216.0	2045	3	1.0	13.3	06
2215	Broach	1013-34	17-4-34	10A						91	180	7000	5.21	15.07	10.3	60.3	1081	10.1	137.2	2200	4	1.0	15.1	64
2731	Broach	1031-35	5-6-35	12	10	6.6	11.3	0.3	17.4	20	189	7200	5.13	13.02	12.1	90.0	1189	12.2	207.2	2528	3	1.5	13.4	03
2731	Broach	1031-35	4-6-35	10A						24	174	7000	5.70	15.07	10.2	57.4	980	10.0	136.4	2502	3	1.0	15.4	05
2731	Broach	1031-35	4-6-35	10B						24	184	9000	5.80	17.08	10.0	69.0	1160	10.5	138.8	2020	3	1.2	17.1	00
3261	Broach	1035-36	6-7-36	12	10	7.2	10.2	0.5	17.0	58	194	7450	5.54	15.02	12.0	78.8	910	12.1	101.2	2911	4	1.2	13.5	70
3261	Broach	1035-36	6-7-36	10A						91	180	8000	5.07	15.07	15.9	53.1	839	15.0	180.0	2097	4	0.8	15.4	72
3261	Broach	1035-36	1-7-36	10B						12	192	9500	5.78	17.04	10.1	72.5	1107	10.2	133.0	2101	5	1.0	17.3	69
3512	Broach	1036-37	25-3-37	12	10	0.3	8.5	0.3	14.5	15	200	7600	5.20	13.02	11.9	110.6	1300	12.1	231.0	2705	3	0.8	13.4	03
3512	(Mixed).	1036-37	20-3-37	14						7	206	8000	5.21	14.94	13.9	92.5	1220	11.3	180.0	2703	3	0.8	14.4	06
3512		1036-37	25-3-37	10A						12	190	8050	5.08	15.07	10.2	72.0	1100	10.0	147.8	2305	4	1.0	15.4	04
3513	Broach	1036-37	27-3-37	12	10	0.0	9.0	0.5	14.4	41	200	7700	6.20	13.02	12.1	87.1	1000	12.4	205.4	2747	3	1.0	13.5	07
3513	(Pale).	1036-37	21-3-37	14						29	204	8450	5.21	14.98	13.9	68.4	914	13.8	177.8	2394	4	1.5	14.7	03
3513		1036-37	24-3-37	10A						18	190	8670	5.91	15.07	15.4	57.0	837	10.1	180.4	2109	5	1.5	15.4	04
4060	Broach	1037-38	20-5-38	12	10	0.0	9.0	0.4	15.0	7	215	8200	5.11	13.02	12.1	91.2	1104	12.0	212.4	2510	3	0.5	13.3	67
4060	Broach	1037-38	21-5-38	14						22	204	8200	6.32	14.08	13.0	70.5	1063	14.0	178.8	2503	3	0.5	14.4	80
4060	Broach	1037-38	20-5-38	10A						24	196	8700	6.10	15.07	10.2	55.8	904	10.0	156.5	2509	3	0.8	15.4	68

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

9.—JAGADIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1047	Jagadia.	Jagadia.	1930-31.
1355	"	"	1931-32.
1786	"	"	1932-33.
2296	"	"	1933-34.
2733	"	"	1934-35.
3262	"	"	1935-36.
3544	"	"	1936-37.
4255	"	"	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover, and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		JAGADIA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	.. ..	White creamy-white; bright.	White; bright.	White; brightish.	White to creamy-white; bright.	White brightish.	White to creamy-white; brightish.	White to creamy-white.	White; bright.
Cleanliness	.. ..	Fairly clean.	Somewhat leafy.	Fairly clean.	Fairly clean.	A little stained; fairly clean.	Fairly leafy.	Contains leaf.	A little leafy.
Feel	.. ..	Good silky.	Good soft.	Good softish.	Good soft.	Good.	Good smooth.	Soft.	Good smooth.
Ginning and neppiness	.. ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	.. ..	..	1.5% unginned.	..	..	..	..	..	..
Card silver	.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Fairly clean.
Card web	.. ..	Good.	Good.	Even and nep-free.	Full and free of nep.	Web good.	Even; nep-free.	Slightly neppy.	A little neppy.
Weight of ten flatstrips	.. ..	10.5 grams.	13.2 grams.	14.0 grams.	15.0 grams.	16.3 grams.	16.5 grams.	14.8 grams.	14.4 grams.
Remarks	.. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

		JAGADIA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	.. ..	Clean.	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.	Almost clean.	Fairly clean.
Evenness	.. ..	Even.	Even.	Fairly even.	Even.	Even.	Even.	Fairly even.	Even.
Neppiness	.. ..	Fairly free of nep.	Almost free of nep.	Almost nep-free.	Almost free of nep.	Fairly free of nep.	Practically free of nep.	Fairly neppy.	Fairly free of nep.
Slubbiness	.. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 9 on page 27.

II.—REPORT OF THE STANDARDS COMMITTEE FOR JAGADIA COTTON.

JAGADIA.										
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under ..	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, April/May 1933.	F. G. M. G. Branch April/May 1934 delivery.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 delivery.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch H. C. No. 2, April/ May 1938 delivery.		
Class ..	Fino ..	Fino ..	Fino ..	Fino to superfine ..	Barely fine ..	Fino ..	Fino ..	Fino to superfine.		
Colour ..	Dullish white ..	White ..	White ..	White ..	Creamy white ..	Whitish ..	White ..	Dull white.		
Staple Length ..	20/22 inch ..	7/8 inch ..	20/32 inch ..	15/10 inch ..	7/8 inch to 15/16 inch.	15/16 inch ..	20/32 inch ..	7/8 inch.		
Staple Strength ..	Fair ..	Fair ..	Good ..	Good ..	Fair ..	Good ..	Good ..	Fair.		
Regularity ..	Regular ..	Regular ..	Regular ..	Regular ..	Fair ..	Regular ..	Regular ..	Regular.		
Value above or below contract rate	Rs. 65 on ..	Rs. 45 on ..	Rs. 45 on ..	Rs. 70 on ..	Rs. 85 on ..	Rs. 35 on ..	Rs. 52 on ..	Rs. 35 on.		
Buata ..	Rs. 182 ..	Rs. 104 ..	F. G. M. G. Branch No. 2, April/May 1933 delivery, Rs. 202.	F. G. M. G. Branch April/May 1934 delivery, Rs. 187.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery Rs. 237.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deliv. very, Rs. 223.	F. G. M. G. Branch H. C. No. 2, April/ May delivery, Rs. 240.	F. G. M. G. Branch H. C. No. 2, April/ May 1938 delivery, Rs. 151.		
Date of Valuation..	5-5-31 ..	30-5-32 ..	24-5-33 ..	3-6-34 ..	15-4-35 ..	24-0-36 ..	10-3-37 ..	10-0-38.		
Remarks ..	..	..	..	..	..	..	..	..

Table 9.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.										RING FRAME PARTICULARS. *										YARN TEST RESULTS.										TEMPERATURE (° F.).	RELATIVE HUMIDITY (%).	Testing Room.
				Weight of Sample, lbs.				Counts Nominal.	Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.				DILUTION.				Evenness class.	Keps per yard.	Turns per Inch Actual.	Spinning Room.							
1017	Jagadia ..	1930-31	11-5-31	10	20	10	8.3	8.0	0.5	16.0	34	100	9,800	0.41	17.98	10.9	77.4	1,540	20.5	113.2	2,321	3	1.7	17.4	90	63	67									
1047	Jagadia ..	1930-31	12-5-31		24		..	..	..	..	0	178	9,800	0.50	19.73	21.1	61.0	1,470	21.4	97.2	2,372	4	1.5	10.1	90	65	67					
1047	Jagadia ..	1930-31	12-5-31		30		..	..	..	..	23	150	9,800	7.88	23.11	20.8	15.4	1,333	30.3	70.4	2,400	5	2.0	22.2	80	66	69					
1355	Jagadia ..	1931-32	9-6-32	10	20	10	8.0	7.5	0.6	15.3	50	194	9,500	5.95	17.98	20.0	79.0	1,592	20.2	120.4	2,553	3	1.2	17.1	91	67	66									
1355	Jagadia ..	1931-32	9-6-32		24		..	..	..	..	24	177	9,550	7.14	19.73	21.1	59.3	1,429	21.1	101.6	2,440	4	1.2	10.0	92	66	66					
1355	Jagadia ..	1931-32	8-6-32		30		..	..	..	..	10	160	9,000	7.00	21.86	20.2	17.1	1,375	20.8	84.6	2,521	4	1.8	21.3	91	66	68					
1786	Jagadia ..	1932-33	1-6-33	0	24	0	8.0	8.8	0.5	16.5	11	180	9,650	5.54	19.73	23.9	63.2	1,510	23.7	108.8	2,570	4	1.2	10.1	89	63	70									
1786	Jagadia ..	1932-33	1-6-33		30		..	..	..	..	122	168	9,400	6.71	21.86	20.8	46.1	1,388	30.3	82.1	2,407	5	2.0	21.3	91	68	70					
2296	Jagadia ..	1933-34	22-5-34	10	20	10	6.6	8.5	0.3	14.8	16	108	9,750	5.85	17.98	20.2	88.8	1,704	20.6	128.8	2,633	3	1.8	17.3	90	68	69									
2296	Jagadia ..	1933-34	22-5-34		24		..	..	..	..	0	180	9,300	5.45	19.73	23.9	72.0	1,735	21.2	111.8	2,706	4	1.8	10.1	90	68	68					
2296	Jagadia ..	1933-34	22-5-34		30		..	..	..	..	20	159	9,500	6.71	21.86	20.5	53.6	1,581	20.9	89.1	2,643	5	1.5	21.2	88	69	70					
2733	Jagadia ..	1934-35	5-6-35	10	20	10	7.5	8.3	0.4	15.0	10	192	9,200	5.95	17.98	20.5	75.5	1,548	20.5	120.0	2,593	3	1.8	17.1	88	60	66									
2733	Jagadia ..	1934-35	6-6-35		24		..	..	..	..	30	176	9,500	5.33	19.73	24.0	61.0	1,536	21.3	108.2	2,629	3	1.5	10.0	90	67	68					
2733	Jagadia ..	1934-35	6-6-35		30		..	..	..	..	17	142	8,300	6.67	21.86	20.1	48.9	1,423	20.7	80.4	2,655	5	2.0	21.3	89	68	68					
3202	Jagadia ..	1935-36	3-7-36	10	20	10	7.5	8.8	0.3	15.9	5	190	9,550	5.95	17.98	20.1	83.1	1,771	20.2	128.0	2,593	3	1.0	17.2	80	77	68									
3262	Jagadia ..	1935-36	3-7-36		24		..	..	..	..	0	171	9,000	5.55	19.73	23.9	70.0	1,673	23.0	106.4	2,513	4	1.5	18.8	87	70	68					
3262	Jagadia ..	1935-36	4-7-36		30		..	..	..	..	20	152	9,550	6.94	21.86	20.7	49.7	1,176	30.2	83.0	2,567	4	1.0	20.8	87	75	70					
3544	Jagadia ..	1936-37	23-3-37	10	20	10	7.2	8.3	0.3	15.2	5	185	9,400	6.22	17.98	20.1	85.8	1,725	20.3	133.2	2,704	3	2.5	17.3	86	60	67									
3544	Jagadia ..	1936-37	29-3-37		24		..	..	..	..	18	169	9,450	5.20	19.73	23.1	73.0	1,686	21.1	110.0	2,651	4	3.2	10.1	86	67	67					
3544	Jagadia ..	1936-37	31-3-37		30		..	..	..	..	3	153	9,400	6.83	21.86	20.0	51.6	1,527	23.0	86.6	2,503	5	3.5	21.1	85	67	67					
4255	Jagadia ..	1937-38	26-6-38	10	20	10	7.1	8.7	0.4	15.5	0	215	10,300	5.93	17.98	20.1	101.7	2,044	10.8	133.0	3,041	3	0.8	17.2	87	72	83									
4255	Jagadia ..	1937-38	26-6-38		24		..	..	..	..	5	192	10,100	5.31	19.73	23.6	83.1	1,661	23.5	121.2	2,848	4	0.8	18.7	89	68	83					
4255	Jagadia ..	1937-38	26-6-38		30		..	..	..	..	10	167	9,900	6.71	21.86	30.0	58.0	1,710	20.0	92.2	2,729	4	1.0	20.0	89	71	83					

*Diameter of ring frame front roller—7/8". Diameter of ring—1 5/8".

†It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

10.—SURAT COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1022	Surat.	Surat.	1930-31.
1353	Surat.	Kosamba.	1931-32.
1783	Surat.	Surat.	1932-33.
2236	Surat.	Surat.	1933-34.
2837	Surat.	Surat.	1934-35.
3163	Surat.	Surat.	1935-36.
3545	Surat.	Ankleshwar.	1936-37.
4061	Surat.	Surat.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	SURAT.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white.	White brightish.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White.
Cleanliness ..	Fairly clean; very bright.	Somewhat leafy.	Fairly clean ..	Clean	Fairly leafy ..	Clean	Contains a little leaf; a trifle stained.	A trifle leafy.
Feel	Very soft.	Soft silky.	Good smooth	Good soft.	Good	Smooth and bodied.	Soft.	Good soft.
Ginning and Nappiness, Seeds	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned. Good amount of uncleaned seeds.	Well-ginned.	Well-ginned.	Well-ginned.
Card Silver ..	Clean.	Almost clean.	Almost clean.	Clean.	A little leafy.	Clean.	Almost clean.	Fairly clean.
Card Web	Very good.	Fairly good.	Even and nep-free.	Good.	Full.	Even and nep-free.	A little neppy.	A trifle neppy.
Weight of ten flat strips	11.0 grams.	14.3 grams	15.1 grams.	14.7 grams.	18.1 grams.	12.3 grams.	13.4 grams.	13.7 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

	SURAT.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Almost clean.	Almost clean.
Evenness	Even.	Even.	Fairly even	Fairly even.	Even.	Even.	Even.	Even in the top or counts only.
Neppliness ..	Practically free of nep.	Almost free of nep.	Free of nep	Fairly free of nep.	A little neppy.	Free of nep.	Slightly neppy.	Fairly free of nep.
Slubbiness ..	..	..	..	..	Occasionally slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 10 on page 30.

III.—REPORT OF THE STANDARDS COMMITTEE FOR SURAT COTTON.

[illegible]

Table 10.—SPINNING TEST RESULTS FOR SURAT COTTON.

No.	Date	Time of day	Count's Actual	WASTE REPLEVATIONS.				RING FRAME PARTICULARS.				YARN TEST RESULTS.						TURNS PER INCH.		TURNS PER INCH.				
				WASTE REPLEVATIONS.				RING FRAME PARTICULARS.				YARN TEST RESULTS.						TURNS PER INCH.		TURNS PER INCH.				
				Card Room.	Spinning Room.	Total Lost.	Yarn Strength per 100 spins.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count Strength	Counts Actual.	Work of Reuping (inch-lb.)	Count Work Product.	Evenness Class.	Steps per yard.	Turns per Inch.	Spinning Room.	Reeling Room.		
122	1912-11	14-4-11	21	10	7.0	7.5	0.5	14.5	0	180	9700	6.10	10.73	23.8	02.4	1185	23.0	101.8	2102	3	1.2	18.8	00	05
123	1912-11	14-4-11	20		..	..	..	..	20	100	10400	8.03	24.57	30.4	43.4	1310	31.0	79.0	2108	4	1.7	23.5	01	07
124	1912-11	14-4-11	20	10	8.0	8.5	0.5	15.0	0	105	9650	5.05	17.99	20.2	73.2	1470	20.1	110.8	2348	3	1.2	17.3	00	08
125	1912-11	14-4-11	21		..	..	..	..	32	178	9350	7.00	10.73	21.1	57.0	1388	23.7	94.2	2233	4	1.8	19.1	01	07
126	1912-11	14-4-11	20		..	..	..	..	57	150	9380	6.91	21.80	20.0	42.2	1210	20.3	78.0	2280	4	2.0	21.2	01	06
127	1912-11	14-4-11	20	10	7.2	8.2	0.5	15.2	114	105	9700	5.08	17.09	20.1	71.2	1131	20.1	125.2	2317	1	1.0	17.2	00	06
128	1912-11	14-4-11	21		..	..	..	..	118	178	9050	6.22	19.73	24.0	51.8	1316	27.0	102.2	2413	5	1.2	18.8	01	06
129	1912-11	14-4-11	20	10	6.0	7.5	0.5	14.3	5	192	9850	5.93	17.08	20.5	83.7	1839	20.7	130.8	2708	3	1.5	17.3	00	06
130	1912-11	14-4-11	21		..	..	..	..	27	182	9800	5.13	19.73	24.4	72.8	1770	25.1	106.8	2681	4	1.2	10.1	89	06
131	1912-11	14-4-11	20		..	..	..	..	30	160	9500	6.70	21.86	30.8	50.1	1513	31.0	86.2	2724	5	1.5	21.1	88	03
132	1912-11	14-4-11	10		..	..	..	..	30	140	9500	9.00	25.29	10.8	32.4	1322	10.1	60.0	2700	0	1.8	21.1	87	03
133	1912-11	14-4-11	20	10	8.1	9.5	0.3	17.1	6	105	9700	6.87	17.09	20.2	100.0	2020	20.1	143.0	2880	3	2.2	17.1	81	80
134	1912-11	14-4-11	20		..	..	..	..	7	100	9550	6.17	21.80	23.0	59.0	1091	20.1	91.8	2971	1	2.0	20.0	84	78
135	1912-11	14-4-11	40		..	..	..	..	22	140	9000	8.83	25.28	10.7	32.7	1331	40.5	65.6	2957	5	1.8	24.1	85	80
136	1912-11	14-4-11	20	10	3.4	7.0	0.2	10.1	0	101	9700	6.95	17.09	20.4	70.7	1565	20.6	110.0	2851	3	0.5	17.5	60	70
137	1912-11	14-4-11	24		..	..	..	..	14	178	9050	5.33	15.73	24.1	62.0	1101	21.1	101.2	2842	1	1.0	19.1	80	00
138	1912-11	14-4-11	20		..	..	..	..	30	119	8000	6.11	21.80	30.0	37.7	1165	31.3	80.4	2517	5	0.8	21.1	80	03
139	1912-11	14-4-11	20	10	7.0	8.4	0.3	15.0	0	100	9500	6.10	17.04	20.3	84.0	1705	20.5	128.9	2015	3	1.8	17.1	80	08
140	1912-11	14-4-11	21		..	..	..	..	23	174	9450	5.37	10.73	23.4	72.8	1791	23.0	113.6	2013	4	2.2	19.0	85	09
141	1912-11	14-4-11	20		..	..	..	..	10	157	9100	6.22	21.60	29.7	55.0	1004	27.9	93.2	2501	4	2.5	21.3	85	07
142	1912-11	14-4-11	20	10	6.2	8.1	0.3	14.3	5	214	10400	5.93	17.09	20.4	01.4	1865	20.1	110.2	2030	2	1.0	17.2	00	00
143	1912-11	14-4-11	30		..	..	..	..	17	178	10500	6.13	21.60	29.0	57.3	1713	20.1	93.4	2710	4	1.0	21.1	93	09
144	1912-11	14-4-11	40		..	..	..	..	27	138	9800	8.17	23.28	39.8	34.0	1331	39.5	71.4	2710	5	1.2	21.1	93	07

* Diameter of ring frame front roller—1". Diameter of fluze—11". It is to be noted that the total 100% is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

11.—NAVSARI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1048 ..	Navsari	Navsari.	1930-31	2828 ..	Navsari.	Navsari.	1934-35
1354 ..	„	„	1931-32	3162 ..	„	„	1935-36
1784 ..	„	„	1932-33	3565 ..	„	Mahuvar.	1936-37
2435 ..	„	„	1933-34	4074 ..	„	Navsari.	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Fame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NAVSARI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	White; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White; bright.	White.	White.
Cleanliness	Clean to fairly clean.	Fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean; a trifle stained.	Clean.
Feel	Silky and bodied.	Very good.	Silky and bodied.	Smooth bodied.	Good.	Smooth and bodied.	Good.	Soft.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..	..	..
Card Silver	Clean.	Clean.	Clean.	Clean.	Soft; clean.	Clean.	Almost clean.	Clean.
Card Web	Very good.	Good.	Even and nep-free.	Full.	Full.	Even and nep-free.	Good.	A trifle neppy.
Weight of ten flat strips	8.1 grams; very light.	13.5 grams.	13.5 grams.	20.7 grams.	19.0 grams.	13.3 grams.	12.5 grams.	14.5 grams.
Remarks	A very desirable cotton.	..	..	..	..	..	..	..

(b) Yarn :—

	NAVSARI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Clean.	Clean.	Clean.	A little lanky.	Clean.	Clean.	Almost clean.	Almost clean.
Evenness	Even.	Even.	Fairly even.	Fairly even.	Even.	Very even.	Fairly even.	Even.
Neppiness	Fairly free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A trifle neppy.	Nep-free.	Almost free of nep.	Slightly neppy.
Slubbiness .. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 11 on page 33.

II.—REPORT OF THE STANDARDS COMMITTEE FOR NAVSARI COTTON.

		NAVSARI.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, April/May 1933.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch Hodge Contract No. 2, July/August 1936 delivery.	F. G. M. G. Branch Hodge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Branch H. C. No. 2.	F. G. M. G. Branch H. C. No. 2, April/May 1938 delivery.
Class	.. ..	Superfine.	Fine to superfine.	Fine to superfine.	Fully good to fine.	Fine.	Barely superfine.	Fine to superfine.	Fine to superfine.
Colour	.. ..	Creamy-white.	Creamy-white.	White but slightly creamy.	Creamy.	Creamy-white.	White.	White.	White; slightly creamy.
Staple Length	.. ..	15/16 inch.	15/16 inch.	31/32 inch.	Barely one inch.	15/16 inch.	31/32 inch.	29/32 inch.	7/8 inch.
Staple Strength	.. ..	Fairly good.	Good.	Good.	Fair.	Fair.	Good.	Fair.	Fair.
Regularity	.. ..	Fairly regular.	Regular.	Regular.	Slightly irregular.	Fair.	Regular.	Slightly irregular.	Fair.
Value above or below Contract rate	.. ..	Rs. 85 on.	Rs. 80 on.	Rs. 55 on.	Rs. 75 on.	Rs. 85 on.	Rs. 60 on.	Rs. 80 on.	Rs. 60 on.
Moist	.. ..	Rs. 182.	Rs. 161.	F. G. M. G. Branch No. 2, April/May 1933 Rs. 202.	F. G. M. G. Branch No. 2, July/August 1933 delivery Rs. 221.	F. G. M. G. Branch H. C. No. 2, July/August 1935 delivery Rs. 224.	F. G. M. G. Branch H. C. Contract No. 2, April/May 1936 delivery Rs. 203.	F. G. M. G. Branch H. C. No. 2, April/May 1937 delivery Rs. 260.	F. G. M. G. Branch H. C. No. 2, April/May 1938 delivery Rs. 169.
Date of Valuation	5-5-31.	30-5-32.	24-5-33.	31-7-34.	13-8-35.	23-1-36.	6-1-37.	10-5-38.
Remarks

Table II.—SPINNING TEST RESULTS FOR NAVSARI

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Table 11.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%).			
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.		BALISTIC.		Revolutions Class.	Neeps per yard.	Turns per Inch. Actual.	Spinning Room.	Testing Room.		
													Counts Nominal.	Weight of Sample (lbs.).	Counts Actual.	Strength (lbs.)						Count-Per Inch	Counts Actual.	Work of Lappure (Inch—lb.)	Count-Per Inch
1048	Navsari ..	1030-31	11-5-31	20	33	0	13.7	0	180	9800	6.41	17.08	20.1	72.5	1457	20.2	117.2	2307	3	1.2	17.3	00	03
1018	Navsari ..	1030-31	12-5-31	21		0	..	0	178	9800	6.38	10.73	24.0	54.0	1296	24.1	98.2	2307	4	1.5	10.1	90	05
1048	Navsari ..	1030-31	12-5-31	30B		37	..	37	156	9800	7.05	23.11	29.1	44.7	1301	29.7	81.0	2100	5	2.0	22.4	80	00
1351	Navsari ..	1031-32	7-6-32	20	10	0	13.1	0	105	9650	5.08	17.08	19.8	76.8	1060	10.8	135.0	2085	3	1.8	17.1	00	07
1351	Navsari ..	1031-32	7-6-32	24		32	..	32	178	9550	7.00	10.73	24.2	57.7	1306	24.0	90.1	2145	4	2.0	10.2	01	05
1354	Navsari ..	1031-32	8-6-32	30A		73	..	73	150	9500	6.04	21.80	28.1	48.0	1303	28.2	87.0	2453	5	2.0	21.1	01	07
1781	Navsari ..	1032-33	30-5-33	21	0	0	14.1	0	178	9650	5.58	10.73	24.0	62.5	1300	23.7	101.4	2471	1	1.0	10.0	01	03
1781	Navsari ..	1032-33	31-5-33	30A		60	..	60	151	9050	7.00	21.80	30.0	44.2	1326	29.7	84.2	2501	4	1.0	20.9	01	00
2135	Navsari ..	1033-34	9-8-34	20	10	0	15.6	0	167	9550	5.50	17.98	20.0	85.0	1703	20.3	131.4	2067	3	2.8	17.2	84	80
2135	Navsari ..	1033-34	9-8-34	30A		10	..	10	102	9500	6.58	21.80	30.0	40.1	1173	20.4	88.2	2593	5	2.5	21.0	84	80
2135	Navsari ..	1033-34	9-8-34	31		30	..	30	146	9050	7.12	23.20	33.1	10.1	1340	33.1	73.8	2008	6	2.5	22.1	84	80
2923	Navsari ..	1034-35	20-8-35	20	10	16	15.8	16	106	9500	5.05	17.08	20.7	86.5	1701	20.7	134.8	2700	3	2.5	17.0	86	00
2923	Navsari ..	1034-35	21-8-35	21		5	..	5	178	9700	5.29	10.73	23.0	70.2	1798	23.8	116.0	2775	3	2.0	10.0	85	72
2923	Navsari ..	1034-35	24-8-35	30A		30	..	30	157	9500	6.71	21.80	31.2	18.5	1513	31.5	85.4	2080	4	2.0	20.7	86	71
3102	Navsari ..	1035-36	30-1-36	20	10	5	10.1	5	105	9600	5.85	17.08	20.0	85.8	1716	10.9	125.2	2491	3	0.5	17.2	80	00
3102	Navsari ..	1035-36	30-4-36	24		27	..	27	178	9700	5.43	10.73	24.3	63.6	1343	24.1	104.0	2521	3	0.8	10.1	89	71
3102	Navsari ..	1035-36	1-5-36	30A		26	..	26	150	8900	6.41	21.80	29.5	49.3	1464	29.6	85.8	2540	4	0.5	21.0	89	08
3505	Navsari ..	1036-37	13-4-37	20	10	10	11.2	10	210	10500	5.95	17.08	20.0	91.7	1831	10.8	135.4	2681	4	1.0	17.0	88	08
3505	Navsari ..	1036-37	13-4-37	24		27	..	27	178	9500	5.44	19.73	24.0	60.8	1003	23.9	110.0	2020	4	1.0	18.8	89	08
3505	Navsari ..	1036-37	14-1-37	30A		23	..	23	160	9500	6.02	21.80	29.8	53.6	1597	29.7	80.2	2560	5	0.8	20.0	88	08
4074	Navsari ..	1037-38	25-5-38	20	10	6	13.4	6	214	10400	6.10	17.08	20.2	97.4	1067	20.0	152.0	3040	2	1.8	17.0	90	00
1074	Navsari ..	1037-38	30-5-38	24		14	..	14	193	10400	5.51	10.73	24.8	72.2	1791	24.5	111.0	2808	3	1.5	18.7	90	08
1074	Navsari ..	1037-38	30-5-38	30A		20	..	20	180	10400	6.70	21.80	30.2	54.6	1040	30.1	93.0	2817	4	1.8	20.9	91	00

* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout ; for bulk sample spun under mill conditions it would be less than shown here.

12.—DHOLLERAS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
724	Dhollerias (Fine) Vagadia	Wadhwan	1929-30.
725	" (Superfine) Vagadia	"	1929-30.
1126	Dhollem Vagadia	"	1930-31.
1368	" "	Limbdi	1931-32.
1886	" "	Kadi	1932-33.
2357	" "	Wadhwan	1933-34.
2830	" "	Manavadar	1934-35.
3231	" "	Bawla	1935-36.
3097	" "	Dhandhuka	1936-37.
4135	" "	Dhrangadhra	1937-38.

I.—SPINNING TESTS.

1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report:—

(a) Cotton:—

DHOLLERAS.										
Season	1929-30 (Fine.)	1929-30 (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white	Dullish white	creamy white.	Dullish white	White to creamy-white; brightish.	White to creamy-white; fairish; bright.	Dullish-creamy-white	White to creamy-white; bright.	White to creamy-white	White to dullish.
Cleanliness	Very leafy (some leaf), a good deal stained.	Leafy (slightly) slight.	Leafy; occasional spot of stain.	Leafy.	Somewhat leafy.	Very leafy with occasional stains.	Stained; leafy.	Fairly leafy.	Very leafy.	Leafy.
Feel	..	Better feel than Fine Dhollerias	Somewhat soft.	Good.	Good.	Good.	Fairly Good.	Good to leafy.	Fairly Good.	Good.
Ginning and neppiness	Fairly well-ginned.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.	..	Well-ginned.	Somewhat knotted.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	Occasional; a fair amount of unripe fibre and 2 per cent. seeds—mostly unginned.	..	1.5% unginned	2.1% ginned and unginned	0% partly ginned.	3.75% unginned (kaps).	..	..	..	Some unginned.
Card Silver	Clear.	Clear.	A little leafy.	Almost clean.	Clean.	Fairly clean	Almost clean.	Almost clean.	Good; a little leafy.	A trifle leafy.
Card Web	Clear.	Clear.	Even and practically nep-free.	Good.	Even and nep-free.	Good.	Good.	Good.	Good; a little neppy.	A trifle neppy.
Weight of 10 flat strips	10.6 grams.	..	21.2 grams.	15.5 grams.	15.0 grams.	20.2 grams.	24.0 grams.	15.4 grams.	23.5 grams.	20.5 grams.
Remarks	A poor, untypical sample.	Staple fine for its length but irregular in length and strength	Fully pressed.	Fully pressed.	..	..	..	..	..	..

(b) Yarn:—

DHOLLERAS.										
Season.	1929-30 (Fine.)	1929-30 (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Fairly clean	Clean	Fairly clean	Clean	Clean	Clean	Fairly clean	Almost clean.	Fairly clean	Fairly clean.
Evenness	Fairly even.	Somewhat uneven.	Fairly even.	Even	Even	Even	Even	Even	Even	Even.
Neppiness	A little neppy.	A little neppy.	Early neppy.	Free of nep.	Free of nep.	Slightly neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.	Fairly free of nep.
Slubbiness	..	Slubby	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results:—See Table 12 on page 36.

II.—REPORT OF THE STANDARDS COMMITTEE FOR DHOLLERAS COTTON.

DHOLLERAS.

	1929-30. (Fine.)	1929-30. (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch.	F. G. M. G. Branch.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.
Class
Colour
Staple Length
Staple Strength
Regularity
Value above or below contract rate.
Basis
Date of Valuation
Remarks

Table 12.—SPINNING TEST RESULTS FOR DHOLLERAS COTTON.

Sample No.	Cotton.	Grown.	Date of Spinning.	Counts Nominal.	Weight of Sample, (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS *				YARN TEST RESULTS.										TEMPERATURE HUMIDITY (%)		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	L.R.A.			HAIRNET.			Spiraling Room.	Spiraling Room.				
															Counts Actual	Strength (lbs.)	Count-Strips	Counts Actual	Work of Ring (incl. b.)	Count-Work Product			Yarns per inch.	Keys per yard.	Yarns per inch.	
724	Dhollera.	1029-30	7-5-30	20A	10	10.0	10.0	0.7	25.5	50	100	..	6.76	17.08	10.8	48.0	1009	19.8	86.8	1710	1	3.0	17.1	90	01	64
724	Dhollera.	1029-30	7-5-30	20B	10	..	..	..	..	10	172	..	6.76	20.23	10.5	37.3	1117	10.6	91.2	1846	5	3.5	10.1	90	03	64
725	Dhollera.	1029-30	7-5-30	20A	10	14.1	0.0	0.0	22.5	70	160	..	6.76	17.08	20.3	41.3	848	20.4	83.2	1097	5	2.5	17.2	90	05	64
725	Dhollera.	1029-30	7-5-30	20B	10	..	..	..	..	15	172	..	6.76	20.23	20.0	63.8	1070	20.2	87.0	1757	5	3.7	10.3	90	05	64
1126	Dhollera.	1030-31	24-7-31	10	0	14.2	11.8	0.0	24.8	40	168	8800	5.78	13.07	13.8	76.4	1207	10.3	120.0	2103	3	1.7	13.5	80	78	70
1126	Dhollera.	1030-31	24-7-31	20A	10	..	..	..	..	110	170	8800	6.10	17.08	10.5	53.0	1072	10.9	102.8	2016	4	5.2	17.1	88	75	81
1126	Dhollera.	1030-31	24-7-31	20B	10	..	..	..	..	70	187	10750	6.25	20.23	10.0	62.1	1230	10.8	110.2	2152	4	4.7	10.4	87	70	81
1368	Dhollera.	1031-32	21-6-32	14	10	13.0	8.1	0.0	21.1	7	100	7750	5.00	14.08	13.0	93.0	1202	14.0	170.0	2380	3	0.3	11.1	89	05	70
1368	Dhollera.	1031-32	21-6-32	10	..	..	..	..	..	30	190	8300	5.00	15.07	16.0	73.3	1173	10.3	127.4	2077	3	0.5	15.3	90	00	71
1368	Dhollera.	1031-32	21-6-32	20A	10	..	..	..	..	62	171	8700	5.71	17.08	11.0	58.1	1133	10.2	106.0	2037	4	0.8	17.2	90	06	70
1368	Dhollera.	1032-33	22-8-33	14	10	12.2	11.0	0.1	22.3	51	105	8250	5.11	14.08	11.0	81.1	1182	13.8	180.0	2008	3	0.5	11.6	84	00	60
1368	Dhollera.	1032-33	22-8-33	16	..	..	..	..	..	55	184	8200	5.00	15.07	15.8	72.0	1147	15.7	101.1	2531	1	1.0	15.1	84	71	71
2357	Dhollera.	1033-34	29-6-34	10	10	18.0	11.3	0.3	28.0	30	103	8250	6.11	13.07	16.1	70.4	1270	15.0	158.4	2310	3	1.5	15.3	80	75	80
2357	Dhollera.	1033-34	29-6-34	20A	10	..	..	..	..	42	175	8350	5.88	17.08	10.0	60.2	1104	20.1	114.8	2307	4	1.8	17.3	80	80	81
2357	Dhollera.	1033-34	29-6-34	20B	10	..	..	..	..	52	188	9800	5.80	10.20	20.0	62.3	1252	20.5	110.1	2283	4	2.0	14.5	85	80	80
2830	Dhollera.	1034-35	28-8-35	12	10	13.8	13.3	0.0	25.6	7	108	7350	6.25	13.02	12.3	100.6	1237	12.2	212.1	2501	3	1.0	13.3	87	71	82
2830	Dhollera.	1034-35	27-8-35	10	..	..	..	..	..	67	136	8050	5.33	13.07	15.1	70.0	1157	15.3	138.8	2180	3	0.8	15.1	87	71	81
2830	Dhollera.	1034-35	27-8-35	20B	10	..	..	..	..	94	180	8500	5.71	10.20	20.2	61.7	1011	20.1	105.4	2110	1	1.0	18.5	87	70	72
3231	Dhollera.	1035-36	10-6-36	12	10	8.0	8.2	0.2	10.5	7	104	7250	5.21	13.02	12.7	97.1	1237	12.3	207.2	2510	3	0.8	13.5	88	60	71
3271	Dhollera.	1035-36	10-6-36	16	..	..	..	..	..	24	102	8500	5.33	13.07	13.7	73.1	1170	16.0	162.0	2502	1	1.0	13.4	88	05	70
3007	Dhollera.	1036-37	12-7-37	12	10	16.8	15.1	0.3	22.7	15	207	7800	5.43	13.02	12.5	101.2	1200	12.5	211.6	2070	3	1.8	13.5	84	70	81
3007	Dhollera.	1036-37	10-7-37	11	..	..	..	..	..	0	193	7800	5.21	11.08	11.0	86.1	1210	11.1	186.1	2028	3	1.5	14.5	86	78	80
3007	Dhollera.	1036-37	10-7-37	10	..	..	..	..	..	6	104	8200	5.05	13.07	10.0	68.1	1091	10.5	102.8	2086	5	1.8	15.1	81	77	80
4135	Dhollera.	1037-38	12-7-38	14	10	14.2	11.0	0.1	31.4	20	218	8000	5.21	14.08	11.0	118.3	1650	13.0	250.8	3163	3	0.8	11.4	83	82	82
4135	Dhollera.	1037-38	12-7-38	10	..	..	..	..	..	12	221	9000	5.08	13.07	10.0	101.2	1010	10.0	188.0	3008	3	0.5	13.4	84	82	80
4135	Dhollera.	1037-38	9-7-38	20A	10	..	..	..	..	20	214	10100	5.78	17.08	20.3	70.0	1150	20.4	124.8	2516	4	0.8	17.4	81	80	73

* Diameter of ring frame front roller—1". Diameter of rings—14".
† It is to be noted that the total loss is for a small sample spun under mill conditions it would be less than shown here.
The 1237-38 sample has given exceptionally good results.

13.—KALAGIN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
757	Kalagin	Manavadar	1929-30
1155	"	"	1930-31
1431	"	Porbunder	1931-32
1888	"	"	1932-33
2358	"	"	1933-34
2771	"	"	1934-35
3327	"	Manavadar	1935-36
3696	"	Porbunder	1936-37
4137	"	Manavadar	1937-38.

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

KALAGIN.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Dull creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white; brightish.	Creamy-white; fairly bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; brightish.	White to creamy-white; brightish.
Cleanliness	Very leafy indeed.	Very leafy.	Very leafy.	Very leafy.	Very leafy; noticeably stained.	Very leafy.	Leafy.	Very leafy.	Very leafy.
Feel	..	Good-bodied.	..	Good.	Good soft.	Good.	Good smooth.	Good.	Good.
Ginning & Neppiness.	Fairly well-ginned.	A trifle knotted.	A trifle knotted and nepped.	..	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	2.5% unginned.	3.5% ginned and unginned.	Too many cut seeds besides 3.75% mainly unginned.	2.1% partly ginned and unginned.	2.35% clean ginned and unginned.	Contains a good amount of partly ginned and full clean seeds.	..	A few seeds.	A few ginned.
Card Silver	A little leafy.	A trifle leafy.	Leafy.	Leafy.	Leafy.	Leafy.	Leafy.	Very leafy.	Leafy.
Card Web	..	Even and neppiness free.	Fairly good.	Good.	Full.	Full.	Good.	Good; neppiness free.	Unr; a little neppy.
Weight of 10 flat strips.	16.9 grams.	20.5 grams.	23.8 grams.	22.1 grams.	32.0 grams.	36.0 grams.	18.7 grams.	10.0 grams.	22.2 grams.
Remarks	Licker-in fly No. 1 all trash; a fair amount of leaf shed over beam and ring rails.	Fully pre-sced.	..	..	..	..	..	Very heavy strips; very much waste in the blow-room and card.	Very waste in blow-room and card.

(b) Yarn :—

KALAGIN.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Fairly leafy.	A little leafy.	A little leafy.	Leafy.	Very leafy.	Leafy.	Leafy.	Leafy.	Leafy.
Evenness	Fairly even.	Fairly even.	Even.	Fairly even.	Somewhat uneven.	Even.	Fairly even.	Fairly even.	Fairly even.
Neppiness	Free of nepp.	Fairly free of nepp.	Almost free of nepp.	Free of nepp.	Slightly neppy.	..	A trifle neppy.	Fairly free of nepp.	A little neppy.
Slubbiness	..	..	..	..	..	A little slubby.	..	..	..

3. Spinning Test Details and Results.—See Table 13 on page 39.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KALAGIN COTTON.

[illegible]

Table 13.—SPINNING TEST RESULTS FOR KALAGIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE.		RELATIVE HUMIDITY (%).
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, ft. p. m.	Spindle Speed, ft. p. m.	Draft.	Turns per inch.	LEA.		BALISTINO.		Keps per yard.	Turns per inch. Actual.	Spinning Room.	Testing Room.				
														Strength (lb.)	Count-Product.	Work of Ring (inch-lb.)	Count-Product.					Counts Actual.	Counts Actual.	Deniers Class.	
757	Kalagin ..	1929-30	14-6-30	20A	18.3	10.5	0.6	27.3	10	106	..	4.00	17.08	10.7	73.8	1454	20.2	112.8	2270	3	1.5	17.2	90	08	70
757	Kalagin ..	1929-30	14-6-30	24	..	..	..	..	40	176	..	5.05	10.73	23.8	35.5	1321	21.4	80.2	1957	5	2.0	10.0	90	08	09
1155	Kalagin ..	1930-31	14-8-31	20A	15.3	12.5	0.6	26.4	74	101	8100	5.83	17.93	20.3	51.0	1034	20.4	104.4	2130	4	1.7	17.2	83	78	80
1155	Kalagin ..	1930-31	14-8-31	20C	..	..	..	..	126	100	10850	5.65	20.23	19.8	67.1	1829	10.7	114.0	2240	4	2.0	10.4	97	74	81
1431	Kalagin ..	1931-32	23-8-32	20A	22.0	16.2	0.8	35.2	143	160	8300	5.13	17.08	20.2	53.7	1085	20.3	102.6	2083	3	1.2	17.2	91	70	71
1431	Kalagin ..	1931-32	23-8-32	20C	..	..	..	..	211	180	10900	5.43	20.23	20.0	63.7	1274	10.7	109.0	2147	3	1.0	19.3	91	08	71
1888	Kalagin ..	1932-33	23-8-33	16A	18.3	14.7	0.3	30.5	24	182	8150	5.43	15.07	10.1	76.8	1236	10.4	138.6	2273	4	1.0	15.2	89	70	70
1888	Kalagin ..	1932-33	23-8-33	20A	..	..	..	..	88	169	8350	5.43	17.08	10.7	61.7	1215	10.0	100.8	2185	5	1.2	16.9	87	73	06
2358	Kalagin ..	1933-34	30-6-34	14	18.8	19.8	0.6	33.2	100	190	7700	5.11	14.08	14.0	78.2	1095	13.7	170.2	2332	4	1.8	14.4	86	70	80
2358	Kalagin ..	1933-34	30-6-34	16A	..	..	..	..	139	180	7800	6.89	15.07	16.1	86.6	943	10.3	121.6	1982	5	1.8	15.1	80	80	82
2358	Kalagin ..	1933-34	29-6-34	20B	..	..	..	..	143	160	8350	5.80	10.20	20.3	47.3	960	20.4	99.8	2016	5	2.0	18.1	85	80	80
2771	Kalagin ..	1934-35	19-7-35	14	15.0	10.8	0.2	32.5	22	216	8000	5.11	14.08	13.8	105.1	1450	13.7	201.2	2766	3	2.2	14.4	84	70	77
2771	Kalagin ..	1934-35	20-7-35	16A	..	..	..	..	12	198	8850	5.05	15.07	10.3	81.9	1335	10.0	162.2	2805	3	2.5	15.0	83	77	73
2771	Kalagin ..	1934-35	18-7-35	20B	..	..	..	..	21	182	9000	6.10	10.20	20.5	61.5	1261	20.3	114.8	2353	4	2.5	18.5	85	75	79
3327	Kalagin ..	1935-36	22-8-36	14	10.6	12.8	0.2	22.3	0	202	8350	5.31	14.08	14.3	102.7	1469	14.1	212.8	3000	4	1.5	14.5	85	77	69
3327	Kalagin ..	1935-36	21-9-36	16A	..	..	..	..	6	194	8450	6.02	15.07	16.0	87.7	1103	10.0	174.0	2794	4	1.8	15.3	85	75	69
3327	Kalagin ..	1935-36	21-8-36	20B	..	..	..	..	21	194	10100	6.07	10.20	20.0	72.8	1456	10.0	122.2	2432	4	2.0	18.4	80	73	70
3606	Kalagin ..	1936-37	20-7-37	12	17.8	24.1	0.4	37.8	7	207	7650	4.00	13.92	11.8	106.8	1260	..	..	..	4	1.5	13.5	80	80	81
3606	Kalagin ..	1936-37	9-7-37	14	..	..	..	..	15	102	7750	5.24	14.08	13.8	76.0	1040	14.2	164.8	2340	4	1.0	14.3	80	77	82
3606	Kalagin ..	1936-37	12-7-37	16A	..	..	..	..	42	178	7600	5.33	15.07	16.1	66.6	911	10.3	133.8	2181	4	1.5	16.1	83	78	81
3606	Kalagin ..	1936-37	12-7-37	16B	..	..	..	..	6	188	8600	5.33	16.07	16.0	71.8	1149	15.8	148.2	2342	4	1.5	16.1	84	70	80
4137	Kalagin ..	1937-38	14-7-38	14	12.7	13.5	0.3	24.8	15	220	9000	6.26	14.08	14.1	101.0	1124	14.4	207.4	2987	4	1.2	14.6	85	78	79
4137	Kalagin ..	1937-38	13-7-38	16A	..	..	..	..	6	198	9000	5.10	15.07	16.2	86.7	1405	16.4	179.2	2939	4	1.0	15.6	86	79	80
4137	Kalagin ..	1937-38	13-7-38	16B	..	..	..	..	12	210	9650	5.21	16.07	16.0	91.2	1514	16.2	186.8	3026	4	1.5	16.6	85	78	80

* Diameter of ring frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample under mill conditions it would be less than shown here.

14.—KADI-VIRAMGAM COTTON.

These samples have been very kindly supplied by the East India Cotton Association inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
727	.. Kadi-Viramgam	Kadi	.. 1929-30.
1161 1930-31.
1430	Jotana	.. 1931-32.
1887	Kadi	.. 1932-33.
2459	Viramgam	.. 1933-34.
3326 1935-36.
3588	Kadi	.. 1936-37.
4136	Viramgam	.. 1937-38.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once). Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

KADI-VIRAMGAM.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
	Creamy to white.	White to creamy white.	White to creamy white.	Creamy-white; brightish.	White to creamy white.	White to creamy white; brightish.	White to creamy white.	White.
	Leafy.	Leafy; slightly stained. Moderately good.	Leafy. Good.	Very leafy. Good.	Slightly stained; leafy. Good.	A little stained; leafy. Good.	Leafy. Fairly good.	Leafy; a trifle stained. Good.
.. & neppiness	..	Well-ginned.	..	Well-ginned.	Well-ginned.	A trifle knotted.	Well-ginned.	Well-ginned.
..	Far too much cut seed.	1.25% seeds.	Considerable number of cut seeds 1.1% ginned and unginned.	1.2% unginned.	1.72% seeds.	..	..	A few ginned.
..	Clean.	Fairly clean.	Clean.	Almost clean.	A little leafy.	A little leafy.	A little leafy.	A little leafy.
..	Clear.	Even and nepp-free.	Fairly good.	Good.	Good.	Fairly good.	Good.	A trifle neppy.
.. of 10 flat	16.2 grams.	17.8 grams.	17.8 grams.	22.6 grams.	20.7 grams.	17.7 grams.	15.6 grams.	18.4 grams.
..	Fairly well-watered at the time of pressing.	Fully-pressed.	..	Well-watered.	..	..	..	..

(b) *Yarn* :—

KADI-VIRAMGAM.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
..	Clean.	Fairly clean.	Clean.	A trifle leafy.	Clean.	Almost clean.	Fairly clean.	Almost clean.
..	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even in the lower counts.	Even.
..	A little neppy.	Somewhat neppy.	Fairly nepp-free.	Free of nepp.	Fairly neppy.	Fairly free of nepp.	Fairly free of nepp.	Fairly free of nepp.
..	Slubby.	..	..	Occasional slub.	..	..	..	..

Spinning Test Details and Results :—See Table 14 on page 42.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KADI-VIRAMGAM.

KADI-VIRAMGAM.

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch Hedge Contract No. 2.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery.
Class	Superfine.	Strict fine.	Fine.	Fine to superfine.	Fully good to fine.	Fine to superfine.	Fine.	Superfine.
Colour	Silvery.	Creamy-white.	White.	Creamy-white.	Dull-white.	White.	Dull-white.	White.
Staple Length	7/8 inch.	Barely 7/8 inch.	Full 3/4 inch.	5/8 inch.	Full 3/4 inch.	3/4 inch.	11/16 inch.	3/4 inch.
Staple Strength	Fair.	Fair.	Fair.	Fair.	Fair.	Moderate.	Fair.	Fair.
Regularity	Fair.	Irregular.	Irregular.	Irregular.	Fair.	Fairly regular.	Regular but soft.	Regular.
Value above or below contract rate ..	Rs. 7 on.	Rs. 8 on.	Rs. 4 on.	Rs. 3 off.	Rs. 3 on.	Rs. 2 on.	Rs. 3 off.	Rs. 5 on.
Basis	Rs. 255.	Rs. 143.	Rs. 219.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch Hedge Contract No. 2, July/August 1934 delivery. Rs. 226.	F. G. M. G. Branch Hedge Contract No. 2, July/August 1936 delivery. Rs. 228.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery. Rs. 233.	F. G. M. G. Branch Hedge Contract No. 2, July/August delivery. Rs. 162.
Date of Valuation	20-4-30.	25-8-31.	17-8-32.	26-7-33.	13-8-34.	8-8-36.	23-4-37.	27-6-38.
Remarks	This year poor character.	..	..	..	..	..	..	..

Table 14.—SPINNING TEST RESULTS FOR KADI-VIRAMGAM COTTON.

Sample No.	Cotton.	Season	Date of Spinning.	WASTE PERCENTAGES.					RING FRAME PARTICULARS.*					YARN TEST RESULTS										RELATIVE HUMIDITY (%).	
				Weights of Sample (lbs)					Yarn Strengths per 100 Spindles per Hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Tens			Ballistic			Twists Actual.	Twists per Inch.	Spinning Room.	Finishing Room.		
				Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss, †	Counts Actual						Strength (lbs.)	Count-Strips	Counts Actual	Work of (Inch lb)	Count-Work Product							
727	Kadi-Viramgam.	1929-30	8-8-30	10	12.7	9.8	0.7	21.8	35	163	..	0.25	17.03	10.1	48.4	0.11	10.5	87.9	1,031	1	5.2	17.2	91	61	64
727	Kadi-Viramgam.	1929-30	8-8-30	20 C	..	..	..	..	90	170	..	0.25	20.27	10.1	59.2	1,112	10.3	90.2	1,711	5	3.5	19.2	92	61	63
1161	Kadi-Viramgam.	1930-31	1-9-31	10	14.1	10.2	0.6	23.3	40	184	8,000	6.25	17.03	20.2	60.6	1,221	20.1	105.1	2,150	1	5.0	17.1	87	74	77
1161	Kadi-Viramgam.	1930-31	1-9-31	24	..	..	..	..	88	150	8,700	0.70	10.73	21.0	10.2	1,070	23.1	91.0	2,176	1	3.5	19.4	85	72	81
1430	Kadi-Viramgam.	1931-32	22-8-32	20 A	17.7	12.3	0.6	26.3	21	183	8,000	5.93	17.03	10.5	66.2	1,201	10.4	110.2	2,251	1	1.5	17.2	89	70	71
1430	Kadi-Viramgam.	1931-32	29-8-32	24	..	..	..	..	47	154	8,450	5.05	10.73	21.5	50.3	1,142	21.3	91.2	2,218	5	2.8	19.0	89	70	70
1887	Kadi-Viramgam.	1932-33	29-8-33	10 A	11.0	13.1	0.6	24.1	224	170	7,500	5.19	15.07	12.8	55.5	1,177	15.3	131.0	2,014	4	0.8	15.1	87	69	69
1887	Kadi-Viramgam.	1932-33	22-8-33	20 A	..	..	..	..	218	168	8,300	5.55	17.03	10.4	35.3	609	10.9	91.1	1,879	4	1.0	17.3	87	67	60
2159	Kadi-Viramgam.	1933-34	21-8-34	20 A	17.8	14.7	0.6	30.3	42	169	9,000	5.03	17.03	20.1	61.1	1,257	20.8	112.9	2,310	3	4.5	17.1	85	77	70
2459	Kadi-Viramgam.	1933-34	22-8-31	24	..	..	..	..	30	170	6,500	5.33	10.73	21.7	54.1	1,282	21.1	94.0	2,362	1	4.0	18.8	81	77	79
2459	Kadi-Viramgam.	1933-34	22-8-31	30	..	..	..	..	122	155	6,000	6.07	23.11	20.7	37.2	1,105	29.8	70.9	2,250	5	4.0	22.1	81	77	74
3329	Kadi-Viramgam.	1936-36	21-8-36	14	10.3	12.2	0.4	21.6	22	202	8,400	5.10	14.03	13.0	85.3	1,186	11.1	170.2	2,400	4	1.8	11.5	86	71	72
3329	Kadi-Viramgam.	1937-36	21-8-36	10 A	..	..	..	..	12	163	8,400	5.81	15.07	16.4	61.6	1,010	10.3	130.8	2,182	4	2.0	15.4	86	71	70
3329	Kadi-Viramgam.	1937-36	21-8-36	20 B	..	..	..	..	53	160	10,100	5.81	19.25	20.2	52.0	1,102	20.2	104.8	2,117	5	1.5	18.6	85	75	76
3588	Kadi-Viramgam.	1936-37	30-4-37	14	13.7	9.0	0.1	22.3	7	206	8,500	6.33	14.03	14.3	82.0	1,185	11.2	178.8	2,510	3	1.2	11.3	89	67	63
3588	Kadi-Viramgam.	1936-37	30-4-37	10 A	..	..	..	..	30	161	8,400	6.13	15.07	16.7	62.0	1,050	10.5	152.0	2,178	4	1.5	15.4	89	60	66
3588	Kadi-Viramgam.	1936-37	29-1-37	20 B	..	..	..	..	16	165	10,200	5.83	10.29	10.9	61.4	1,222	10.6	100.2	2,110	5	1.5	18.3	89	60	66
4136	Kadi-Viramgam.	1937-38	11-7-38	14	11.0	10.1	0.3	21.0	36	221	9,000	5.33	14.03	14.3	104.7	1,107	11.2	206.2	2,052	3	0.6	14.3	89	70	78
4136	Kadi-Viramgam.	1937-38	12-7-38	10 A	..	..	..	..	8	200	9,000	5.33	15.07	16.2	88.0	1,110	15.8	181.4	2,572	4	0.8	15.3	89	78	80
4136	Kadi-Viramgam.	1937-38	12-7-38	10 B	..	..	..	..	0	208	9,700	5.11	16.07	10.0	69.0	1,382	15.0	184.0	2,056	4	0.8	16.3	89	77	80

* The ring frame front-roller used in the spinning of these yarns has a diameter of 1 inch. The diameter of rings—1 1/2".
† It is to be noted that the total loss is for a small sample spun under mill conditions it would be less than shown here.

15.—WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
795	Westerns	Bellary	1929-30.
1127	Westerns	Adoni.	1930-31.
1370	Westerns	Adoni.	1931-32.
1889	Westerns	Raichur.	1932-33.
2356	Westerns	Adoni	1933-34.
2838	Westerns	Raichur.	1934-35.
3398	Westerns	Adoni.	1935-36.
3635	Westerns	Adoni.	1936-37.
4193	Westerns Jhavari	Raichur.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. I possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		WESTERNS.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	.. ..	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Dull creamy	Creamy-white ; dullish.	Creamy-white to white.	Creamy-white.
Cleanliness	.. ..	Leafy ; rather badly stained.	Leafy ; slightly stained.	Much stained ; leafy.	Very leafy	Badly stained ; leafy.	Leafy ; slightly stained.	Leafy ..	Very leafy.
Feel	.. ..	Fairly good but softish.	Softish ..	Poorish ..	Good ..	Good ..	Good ..	Fairly good ..	Good, softish.
Ginning and neppiness	.. ..	Fairly well- ginned.	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Somewhat knotted.	A trifle knotted	Well-ginned ..	Well-ginned.
Seeds	.. ..	..	0.7% ginned and unginned.	..	1% full clean.	..	..	..	..
Card Silver	.. ..	A trifle leafy ..	A little leafy ..	Almost clean ..	Fairly leafy ..	Fairly clean ..	Almost clean ..	Good ; leafy ..	Leafy.
Card Web	.. ..	Very slightly neppy.	Good ..	Good ..	Good even ..	A little neppy.	Even ; nep-free.	Good ; nep-free	Good ; quite free of nep.
Weight of 10 flatstrips.	.. ..	17.6 grams.	11.3 grams.	18.4 grams.	23.7 grams.	22.5 grams.	14.7 grams.	17.8 grams.	17.5 grams.
Remarks	.. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

		WESTERNS.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	.. ..	Fairly clean ..	Fairly clean ..	Clean ..	A little leafy ..	Almost clean ..	Almost clean ..	A little leafy ..	A little leafy.
Evenness	.. ..	Fairly even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Fairly even ..	Even ..	Even.
Neppiness	.. ..	Neppy ..	A little neppy	Fairly free of nep.	Somewhat neppy.	Fairly free of nep.	Somewhat neppy.	Almost free of nep.	Fairly free of nep.
Slubbiness	.. ..	..	..	..	Slightly slubby.	Slightly slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 15 on page 45.

II.—REPORT OF THE STANDARDS COMMITTEE FOR WESTERNS.

WESTERNS.

		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery.	F. G. M. G. Broach No. 2, July/Aug. 1934.	F. G. M. G. Broach No. 2, July/Aug. 1935 delivery.	F. G. M. G. Broach No. 2, April/May 1937 delivery.	F. G. M. G. Broach No. 2, April/May 1937 delivery.	F. G. M. G. Broach No. 2, July/Aug. 1938 delivery.
Class	.. ..	Superfine ..	Superfine ..	Good to Fully good	Fully good ..	Fine ..	Fine ..	Superfine ..	Superfine.
Colour	.. ..	Yellowish ..	Brownish-dull white.	Brownish ..	Brownish white ..	Brownish ..	Creamy brown ..	Brownish white ..	Brownish white.
Staple Length	.. ..	Full 3 3/4 inch	3/4 inch ..	5/8 inch ..	3/4 inch ..	13/16 inch ..	11/16 inch ..	13/16 inch ..	11/16 inch.
Staple Strength	.. ..	Fairly good	Weak ..	Fair ..	Fair ..	Moderate ..	Poor ..	Good ..	Fair.
Regularity	.. ..	Irregular ..	Irregular ..	Irregular ..	Irregular ..	Fair ..	Irregular ..	Fairly regular ..	Fair.
Valued above or below Contract rate	.. ..	Ra. 10 on ..	Ra. 8 on ..	Rs. 5 off ..	Par ..	Ra. 30 on ..	Rs. 10 off ..	Ra. 30 on ..	Rs. 15 on.
Basis	.. ..	Ra. 177 ..	Ra. 162 ..	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery Ra. 207.	F. G. M. G. Broach No. 2, July/Aug. 1934 delivery Ra. 208.	F. G. M. G. Broach No. 2, July/Aug. 1935 delivery Ra. 231.	F. G. M. G. Broach No. 2, April/May 1937 delivery Ra. 219.	F. G. M. G. Broach No. 2, April/May 1937 delivery Ra. 231.	F. G. M. G. Broach No. 2, July/Aug. 1938 delivery Ra. 144.
Date of Valuation	.. ..	14-7-31 ..	13-6-32 ..	20-7-33 ..	19-6-34 ..	20-8-35 ..	5-10-36 ..	20-3-37 ..	9-8-38.
Remarks	.. ..	Probably mixed with Mungari.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Table 15.—SPINNING TEST RESULTS FOR WESTERNS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	L.T.A.			BALISTIC.			Evenness Class.	Meps per yard.	Turns per inch Actual.			Spinning Room.	Sizing Room.
															Counts Actual.	Strength lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
795	Westerns..	1929-30	24-7-30	20A	10	13.9	11.9	0.7	24.7	68	176	..	5.32	17.98	19.0	49.4	908	20.0	94.2	1884	4	10.7	17.0	86	76	72	
795	Westerns..	1929-30	24-7-30	20B		..	..	..	..	50	192	..	5.32	20.23	19.3	66.7	1297	19.3	107.8	2081	4	11.5	19.3	87	71	75
1127	Westerns..	1930-31	24-7-31	20A	10	10.8	10.8	0.4	20.7	30	190	9450	5.42	17.98	20.1	66.0	1399	20.0	115.0	2312	4	8.0	10.9	88	73	82	
1127	Westerns..	1930-31	25-7-31	24		..	..	..	..	40	160	8200	0.45	19.73	23.7	52.0	1292	24.3	92.0	2236	3	8.5	18.7	87	76	80
1370	Westerns..	1931-32	23-0-32	20A	10	11.2	9.0	0.5	19.7	30	194	9500	5.57	17.98	19.4	77.7	1507	19.7	120.4	2490	3	2.5	17.3	86	69	78	
1370	Westerns..	1931-32	23-0-32	24		..	..	..	..	8	176	9500	0.65	19.73	23.1	59.0	1331	23.2	101.2	2348	4	3.0	19.3	86	72	78
1880	Westerns..	1932-33	1-0-33	16	10	15.0	10.8	0.1	24.5	73	181	8000	5.33	15.97	15.0	74.4	1183	10.1	182.0	2125	4	2.0	15.2	86	63	67	
1880	Westerns..	1932-33	31-8-33	20A		..	..	..	..	151	178	8800	5.55	17.98	19.9	55.4	1102	20.3	103.0	2091	5	2.0	17.2	87	69	67
2350	Westerns..	1933-34	20-0-34	16	10	14.1	13.0	0.5	25.0	42	192	8950	5.03	15.97	16.0	71.3	1141	15.8	138.0	2111	4	2.5	15.4	86	78	81	
2350	Westerns..	1933-34	29-0-34	20A		..	..	..	..	109	175	8560	5.08	17.98	10.8	55.3	1063	19.9	102.0	2012	5	2.0	17.3	86	80	85
2350	Westerns..	1933-34	28-0-34	20B		..	..	..	..	114	188	9800	5.98	19.26	20.0	60.2	1204	19.7	107.0	2108	4	2.5	18.4	85	80	80
2698	Westerns..	1934-35	31-8-35	16	10	10.8	12.7	0.2	22.3	18	108	8800	5.80	15.97	15.0	107.2	1704	16.0	188.0	2023	3	1.8	13.4	85	73	74	
2698	Westerns..	1934-35	30-8-35	20A		..	..	..	..	26	179	8550	5.93	17.98	20.1	75.2	1312	20.1	129.2	2597	3	2.2	17.0	86	75	74
2698	Westerns..	1934-35	31-8-35	20B		..	..	..	..	10	185	9000	6.07	19.26	20.5	70.2	1024	20.6	127.0	2629	3	2.0	18.3	85	76	72
3398	Westerns..	1935-36	14-10-36	16	10	12.5	10.5	0.2	21.8	0	194	8900	5.71	15.97	16.5	80.6	1330	16.5	136.2	2247	3	3.5	13.4	89	69	61	
3398	Westerns..	1935-36	11-10-36	20A		..	..	..	..	5	181	9000	6.83	17.98	19.7	66.0	1300	19.8	111.4	2206	4	2.6	17.1	88	70	64
3398	Westerns..	1935-36	14-10-36	20B		..	..	..	..	5	197	10350	5.95	19.26	20.3	72.2	1466	20.6	109.2	2250	4	2.5	18.7	87	69	63
3695	Westerns..	1936-37	23-5-37	16	10	12.1	10.8	0.3	21.9	6	200	8700	5.24	15.97	15.6	95.2	1485	16.1	151.4	2198	3	1.2	15.3	90	67	66	
3695	Westerns..	1936-37	29-5-37	20A		..	..	..	..	10	197	9300	5.93	17.98	20.7	59.3	1228	20.8	107.8	2242	4	1.2	17.3	90	69	66
3695	Westerns..	1936-37	29-5-37	20B		..	..	..	..	10	196	10200	5.93	19.26	20.6	69.0	1421	20.9	111.0	2300	4	1.8	18.5	89	69	66
4103	Westerns..	1937-38	20-8-38	16	10	12.1	11.1	0.4	22.2	12	203	8000	6.39	15.97	16.1	94.5	1521	16.1	162.0	2008	3	1.0	15.3	86	71	70	
4103	Westerns..	1937-38	18-8-38	20A		..	..	..	..	10	195	9000	5.81	17.98	20.3	68.9	1399	20.1	117.8	2308	4	0.8	17.1	86	72	73
4103	Westerns..	1937-38	18-8-38	20B		..	..	..	..	36	198	10300	5.81	19.26	19.9	78.0	1504	20.0	121.0	2190	4	1.0	18.2	87	73	76

* Diameter of ring frame front roller—1". Diameter of rings—14".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

16.—FARM WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
758	Farm Westerns	Guntakal	1929-30
1128	"	Adoni	1930-31
1371	"	Bellary	1931-32
1890	"	Adoni	1932-33
2297	"	Bellary	1933-34
2772	"	Adoni	1934-35
3323	"	Raichur	1935-36
3654	"	Guntakal	1936-37

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

FARM WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Creamy	Creamy-white	Creamy-white	Creamy-white	White to creamy-white; fairly bright.	Creamy-white; fairly bright	Creamy-white	Creamy-white.
Cleanliness ..	Very leafy	Leafy	Leafy; a good deal stained	Stained; leafy.	Leafy	Leafy	Leafy (fine leaf)	Leafy.
Feel ..	Good	Good	Good softish	Good	Good	Good	Good	Good.
Ginning and neppiness	Fairly well-ginned.	Well-ginned	Well-ginned	Somewhat knotted.	Well-ginned	Well-ginned	A little knotted.	..
Seeds ..	1.56% ginned and ungin-	..	1.4% ginned and ungin-	..	2.2% ungin-	Contains too many full	Few.	Ginned 0.86%.
Card sliver ..	Fairly clean	Slightly leafy.	A little leafy	Clean	Fairly clean	Leafy	Almost clean	A little leafy.
Card web ..	..	Even and almost nep-free.	Good	Good	Good even	Full	Good	Good.
Weight of 10 flat strips.	16.4 grams	13.7 grams	16.0 grams	18.5 grams	16.3 grams	25.1 grams	15.1 grams	16.2 grams.
Remarks ..	Much leaf shed over beam and ring rolls.	Fully pressed.	..	..	..	..	..	..

(b) Yarn :—

FARM WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly leafy	A little leafy	Fairly clean	Clean	Almost clean	Somewhat leafy.	Almost clean	Leafy.
Evenness ..	Even	Fairly uneven	Even	Fairly even	Even	Fairly even	Even	Even.
Neppiness ..	A little neppy	Neppy	A little neppy	Almost free of nep.	Practically free of nep.	Somewhat neppy.	Slightly neppy.	Practically nep-free.
Slubbiness ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 16 on page 48.

Table 16.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning	Counts Manual	Weight of sample, (lbs.)	WASTE PERCENTAGES				RING FRAME PARTICULARS *				YARN TEST RESULTS										LENGTH OF YARN (Yds.)		RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per hour.	Front Roller Speed R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	Counts Actual	Strength (lbs.)	Count-Strips (inches)	Count-Actual	Work (inch-lbs.)	Count-Product	Count-Strips (inches)	Count-Product	Counts per inch			
758	Farm Westerns	1920-30	11-0-30	20	10	13.0	11.1	0.6	23.1	5	100	..	4.00	17.08	19.6	84.5	1612	19.7	121.8	2199	7	2.5	17.1	90	68	70
758	Farm Westerns	1920-30	11-0-30	21	10	..	..	..	..	41	170	..	5.95	19.77	23.5	61.4	1452	27.6	75.6	2067	4	1.0	19.0	90	68	70
1128	Farm Westerns	1930-31	24-7-31	20	10	10.5	11.1	0.3	20.5	20	190	9150	5.26	17.94	20.6	61.0	1718	20.0	108.2	2301	1	7.5	17.3	85	75	80
1128	Farm Westerns	1930-31	27-7-31	24	10	..	..	..	..	27	150	8200	6.10	19.73	23.6	56.5	1333	21.0	68.4	2152	0	6.5	18.8	85	76	85
1371	Farm Westerns	1931-32	27-6-32	20	10	12.3	8.7	0.5	20.4	10	194	9300	5.44	17.09	19.6	86.0	1703	20.0	129.2	2764	3	5.0	17.4	86	69	77
1371	Farm Westerns	1931-32	29-6-32	24	10	..	..	..	..	24	175	9200	6.41	19.73	23.0	70.7	1026	21.4	111.6	2682	4	5.0	19.3	86	72	81
1990	Farm Westerns	1932-33	31-8-33	20	10	13.8	10.5	0.5	23.2	145	178	8900	5.68	17.09	19.8	69.6	1200	20.0	111.2	2221	1	1.5	17.2	87	69	70
1990	Farm Westerns	1932-33	31-8-33	24	10	..	..	..	..	165	162	8000	5.05	19.73	23.4	45.3	1078	21.0	92.0	2304	4	1.8	19.0	87	70	68
2297	Farm Westerns	1933-34	22-5-34	20	10	12.2	9.3	0.3	20.6	10	198	9750	5.05	17.09	20.2	84.2	1620	20.1	171.2	2937	1	1.2	17.3	80	68	69
2297	Farm Westerns	1933-34	22-5-34	24	10	..	..	..	..	9	180	9700	5.33	19.73	27.5	68.8	1017	21.2	106.2	2570	4	1.5	19.1	90	65	70
2297	Farm Westerns	1933-34	23-5-34	30	10	..	..	..	..	30	130	9500	6.62	21.86	29.1	40.3	1435	30.3	81.8	2509	5	1.5	21.1	88	68	70
2772	Farm Westerns	1934-35	18-7-35	20	10	9.4	10.1	0.4	21.6	10	198	9750	6.10	17.09	19.9	86.0	1711	20.0	145.0	2700	3	2.2	17.0	80	72	74
2772	Farm Westerns	1934-35	19-7-35	24	10	..	..	..	..	27	180	9700	5.44	19.73	24.8	69.0	1061	27.4	111.6	2658	4	2.5	18.8	85	78	80
2772	Farm Westerns	1934-35	19-7-35	30	10	..	..	..	..	53	159	9700	6.86	21.86	28.7	52.5	1109	29.5	89.6	2554	5	1.9	21.0	85	77	81
3323	Farm Westerns	1935-36	20-8-36	16	10	11.0	9.7	0.3	20.4	18	192	8700	5.05	17.07	15.0	93.8	1403	16.1	125.2	2499	1	2.0	15.2	85	71	75
3323	Farm Westerns	1935-36	10-8-36	20A	10	..	..	..	..	21	186	9350	6.07	17.09	19.9	66.2	1317	29.4	112.0	2485	1	2.2	17.3	86	72	74
3323	Farm Westerns	1935-36	10-8-36	20B	10	..	..	..	..	5	196	10600	6.10	19.59	20.0	73.9	1473	29.2	113.6	2593	1	1.2	18.7	86	71	74
3654	Farm Westerns	1936-37	11-6-37	16	10	12.5	10.0	0.3	21.5	6	193	8700	5.50	15.07	15.0	113.1	1764	15.4	129.2	2914	3	0.8	15.5	90	70	69
3654	Farm Westerns	1936-37	12-6-37	20	10	..	..	..	..	10	192	9000	4.71	17.09	19.3	84.5	1794	19.0	128.0	2922	3	0.5	17.5	91	65	72
3654	Farm Westerns	1936-37	12-6-37	24	10	..	..	..	..	14	178	9700	5.09	19.73	23.4	65.2	1220	21.1	106.8	2407	1	0.9	19.2	90	69	74

* Diameter of ring frame front roller—1". Diameter of flyer—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; 1/2 lb. bulk sample spun under mill conditions it would be less than shown here.

17.—KUMPTA COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1129	Kumpta	Hubli	1930-31
1369	"	"	1931-32
1891	"	"	1932-33
2298	"	Gadag.	1933-34
2872	"	"	1934-35
3399	"	Hubli.	1935-36
3698	"	"	1936-37
4258	"	"	1937-38

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter-Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

KUMPTA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
.. ..	Dullish creamy	Dullish creamy-white.	Dullish creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white; dullish.	Creamy-white.	White to creamy white.
s ..	Leafy ..	Leafy ..	Very leafy; stained.	Leafy ..	Very leafy ..	Leafy; slightly stained.	Leafy ..	Very leafy.
and nep- free	Moderately good ..	Well-ginned ..	Good ..	Good smooth ..	Good ..	Good ..	Good bodied ..	Good.
.. ..	Too much cut and crushed besides 1.1% ginned and unginned.	A few ginned and unginned	..	1.55% unginned and partly ginned.	..	..	..	Fairly well-ginned.
.. ..	Fairly clean ..	Clean ..	Almost clean ..	Fairly leafy ..	Clean ..	Almost clean ..	A little leafy ..	Leafy.
.. ..	Even and practically free of nep.	Good ..	Even and nep-free.	Good ..	Good ..	Even; nep-free	Good; fairly free of neps.	Almost free of neps.
of 10 flat	16.3 grams	14.3 grams	15.2 grams	16.2 grams	10.3 grams	14.3 grams	23.6 grams	15.8 grams.
.. ..	..	..	..	Fairly well-watered.	..	..	..	..

Yarn :—

KUMPTA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Fairly clean ..	Almost clean ..	Clean ..	Fairly clean ..	Leafy ..	Almost clean ..	A little leafy ..	Fairly clean.
.. ..	Fairly even ..	Even ..	Fairly even ..	Fairly even in the two lower counts.	Even ..	Even ..	Fairly even ..	Even.
.. ..	Slightly neppy.	A trifle neppy.	Free of nep	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.	Fairly free of nep.
.. ..	..	..	..	A little slubby.	..	..	..	..

*Spinning Test Details and Results :—*See Table 17 on page 51.

II. REPORT OF THE STANDARDS COMMITTEE FOR KUMPTA COTTON.

50

Kumta.											
	1030-31.	1031-32.	1032-33.	1033-34.	1034-35.	1035-36.	1036-37.	1037-38.			
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch No. 2, April/May 1934 delivery.	F. G. M. G. Branch No. 2, April/May 1936 delivery.	F. G. M. G. Branch No. 2, April/May 1937 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1937 delivery.	F. G. M. G. Branch No. 2, April/May 1938 delivery.			
Class	Fine ..	Fine ..	Fully good ..	Fully good to fine.	Fine ..	Fine ..	Fine to superfine ..	Fine.			
Colour	Brownish yellow ..	Brownish white ..	Brownish ..	Grayish and creamy	Dull white ..	Grayish ..	Brownish ..	Grey.			
Staple Length	Full 7/8 inch ..	7/8 inch ..	2/4 inch ..	Full 3/4 inch ..	13/16 inch ..	7/8 inch ..	13/16 inch ..	7/8 inch.			
Staple Strength	Good ..	Fair ..	Fair ..	Good ..	Good ..	Good ..	Good ..	Irregular.			
Regularity	Regular ..	Rather irregular ..	Irregular ..	Regular ..	Fairly regular ..	Irregular ..	Regular ..	Irregular.			
Value above or below contract rate ..	Rs. 50 on ..	Rs. 25 on ..	Rs. 10 on ..	Rs. 22 on ..	Rs. 30 on ..	Rs. 50 on ..	Rs. 22 on ..	Rs. 22 on.			
Basis	Rs. 177 ..	Rs. 162 ..	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch No. 2, April/May 1934 delivery. Rs. 192.	F. G. M. G. Branch No. 2, April/May 1936 delivery. Rs. 197.	F. G. M. G. Branch No. 2, April/May 1937 delivery. Rs. 219.	F. G. M. G. Branch No. 2, July/Aug. 1937 delivery. Rs. 225.	F. G. M. G. Branch No. 2, April/May 1938 delivery. Rs. 151.			
Date of Valuation	14-7-31 ..	13-6-32 ..	30-7-33 ..	11-5-34 ..	16-9-35 ..	3-10-36 ..	28-5-37 ..	19-9-38.			
Remarks .. ..	..	..	..	..	..	..	..	..

Table 17.—SPINNING TEST RESULTS FOR KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE HUMIDITY (%).	TEMPERATURE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed H. P. M.	Spindle Speed H. P. M.	Draft.	Turns per Inch.	I.F.A.			BALLISTIC.			Reps per yard.	Turns per Inch. Actual.	Spiraling Room.			Spiraling Room.	
															Counts Actual.	Strength (lbs.)	Count-Strangth Count-Product.	Counts Actual.	Work of Rupture (Inch—lb.)	Count-Work Product.							Evenness Class.
1120	Kumpta ..	1030-31	27-7-31	21	10	14.1	10.3	0.5	23.5	24	160	9600	5.08	19.73	24.0	63.7	1577	23.7	103.0	2441	4	1.7	13.9	85	80	83	
1120	Kumpta ..	1030-31	27-7-31	30 B		..	..	..	..	42	153	9700	7.06	23.11	29.6	47.7	1412	20.1	82.4	2308	5	3.0	22.2	86	76	85
1300	Kumpta ..	1031-32	30-8-32	24	10	15.0	9.2	0.5	23.2	42	180	9650	5.77	19.73	22.7	67.2	1525	23.4	97.6	2381	3	1.5	10.1	90	60	73	
1300	Kumpta ..	1031-32	22-8-32	30 B		..	..	..	..	23	153	9550	7.11	23.26	29.0	49.3	1450	29.5	81.2	2395	4	2.0	22.6	97	70	77
1301	Kumpta ..	1032-33	30-8-33	21	10	15.0	8.9	0.5	23.5	150	178	9600	5.63	19.73	23.5	58.5	1375	24.1	94.0	2205	4	0.5	18.8	87	70	67	
1301	Kumpta ..	1032-33	31-8-33	30 A		..	..	..	..	100	150	9000	6.84	21.86	23.0	42.3	1210	29.1	76.4	2223	5	1.0	20.9	86	73	60
2293	Kumpta ..	1033-34	21-5-34	20	10	14.7	9.7	0.6	23.4	21	108	9050	5.81	17.98	19.8	77.1	1327	20.4	111.4	2273	4	1.2	17.1	88	68	70	
2293	Kumpta ..	1033-31	23-5-31	24		..	..	..	..	32	180	9550	5.92	19.73	23.4	63.4	1184	24.1	97.2	2313	5	1.8	10.0	80	60	70
2293	Kumpta ..	1033-34	23-5-31	30 A		..	..	..	..	73	154	9100	6.62	21.86	29.8	41.2	1229	30.0	77.2	2362	0	1.5	20.9	89	60	70
2872	Kumpta ..	1031-35	25-9-35	20	10	10.6	13.8	0.4	23.2	20	107	9700	5.95	17.98	20.4	89.2	1820	20.2	127.2	2509	3	1.2	17.1	80	68	71	
2872	Kumpta ..	1031-35	21-9-35	24		..	..	..	..	18	176	9650	5.23	19.73	23.4	71.9	1753	23.3	109.0	2540	3	1.2	10.0	80	69	72
3300	Kumpta ..	1035-36	10-10-36	20	10	9.4	10.7	0.4	19.4	21	194	9700	6.10	17.98	20.4	85.3	1740	20.1	110.0	2392	3	1.2	17.2	80	71	60	
3300	Kumpta ..	1035-36	15-10-36	24		..	..	..	..	10	178	9700	5.55	19.73	23.4	72.3	1692	23.1	105.2	2430	4	1.5	19.1	87	66	60
3300	Kumpta ..	1035-36	15-10-36	30 A		..	..	..	..	17	147	9000	0.70	21.86	29.4	62.4	1511	28.7	88.0	2468	4	1.5	21.1	80	61	63
3008	Kumpta ..	1036-37	12-7-37	20	10	12.5	13.8	0.5	25.0	16	104	9600	6.00	17.98	19.0	89.4	1693	10.7	134.0	2610	3	1.2	17.2	83	80	82	
3008	Kumpta ..	1036-37	12-7-37	24		..	..	..	..	32	174	9500	5.35	19.73	24.3	62.1	1509	24.1	104.8	2520	4	1.5	18.8	82	83	70
3008	Kumpta ..	1036-37	13-8-37	30 A		..	..	..	..	30	158	9600	6.02	21.86	30.3	45.0	1391	30.0	94.8	2595	5	1.5	20.9	83	81	78
4293	Kumpta ..	1037-38	28-9-38	20	10	12.2	10.2	0.6	21.6	20	216	10300	6.05	17.98	19.9	90.3	1797	19.8	136.0	2693	3	0.8	17.3	88	70	69	
4233	Kumpta ..	1037-38	28-9-38	24		..	..	..	..	14	180	9700	5.48	19.73	23.7	71.5	1695	23.2	117.0	2714	3	1.0	19.2	80	68	70
4253	Kumpta ..	1037-38	29-9-38	30 A		..	..	..	..	50	165	9800	6.91	21.86	29.8	48.2	1480	30.2	86.0	2615	5	1.0	21.1	89	69	69

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".
† It is to be noted that the total loss is for a small sample weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

18.—UPLAND COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by the Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton	Place.	Season.
796	Upland ..	Gadag ..	1929-30	2475	Upland ..	Gadag ..	1933-34
1158	" ..	Hubli ..	1930-31	2829	" ..	" ..	1934-35
1396	" ..	Gadag ..	1931-32	3325	" ..	" ..	1935-36
1884	" ..	" ..	1932-33	3655	" ..	" ..	1936-37

1. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Porcupine, (Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	UPLAND.							
	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37
Colour ..	Creamy-white, to light	Creamy white.	Creamy-white	Creamy white.	Creamy-white.	White to creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness ..	Leafy ..	Leafy; slightly stained.	Somewhat leafy.	Leafy ..	Very leafy ..	Fairly clean ..	Slightly stained leafy leafy.	Fairly clean
Feel ..	Good ..	" ..	Good softish	Softish ..	Good ..	Soft; powdery	Good ..	Good bodied.
Ginning and Neppiness ..	A little nepped and knotted	Well ginned except for slight knottiness.	Well ginned	Somewhat knotted ginning	Fairly well ginned.	Well ginned ..	A trifle knotted	Well-ginned.
Seeds ..	A fair amount of undeveloped seed, 0.5% full clean.	0.6% cleaned and not	0.5% unginned	" ..	" ..	Some seeds ..	" ..	" ..
Card Sliver ..	" ..	Almost clean ..	Clean ..	Clean ..	Leafy ..	Clean; soft ..	Clean ..	Clean.
Card Web ..	A little cloudy and neppy.	Practically free of nepp.	Good ..	Good ..	Somewhat cloudy.	Slightly neppy	Good ..	Good; nepp free.
Weight of 10 fls.	20.8 grams.	21.2 grams.	23.7 grams.	25.7 grams.	26.4 grams.	24.1 grams.	15.8 grams.	17.2 grams.
Remarks ..	" ..	" ..	" ..	" ..	" ..	" ..	" ..	" ..

(b) Yarn :—

	UPLAND.							
	1929-30.	1930-31	1931-32	1932-33.	1933-34.	1934-35.	1935-36	1936-37.
Cleanliness ..	Fairly leafy ..	Almost clean ..	Almost clean ..	Somewhat leafy.	Leafy ..	Clean ..	Almost clean ..	Slightly leafy.
Evenness ..	Very neppy ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Even ..	Even.
Neppiness ..	Fairly even ..	A trifle neppy	A little neppy.	Somewhat neppy.	A trifle neppy.	Practically free of nepp.	Practically free of nepp.	Practically free of nepp.
Stubbiness ..	" ..	" ..	" ..	A trifle shabby.	" ..	Somewhat shabby.	" ..	" ..

3. Spinning Test Details and Results :—See Table 18 on page 54.

II.—REPORT OF THE STANDARDS COMMITTEE FOR UPLAND COTTON.

UPLAND.										
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	F. G. M. G. Broach.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2, Aug-July. 1933 delivery.	F. G. M. G. Broach. Contract No. 2, April-May 1935 delivery.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1935 delivery.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1936 delivery.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1937 delivery.		
Class	Strict fine ..	Fine ..	Fine ..	Fully good to fine.	Fino ..	Superfine ..	Superfine ..	Fino.		
Colour	Bluish white ..	White but slightly creamy.	Bluish white ..	Whitish ..	Whitish ..	Whitish ..	White ..	White.		
Staple Length	7/8 inch ..	29/32 inch ..	Full 3/4 inch ..	11/10 inch ..	13/10 inch ..	3/4 inch ..	11/10 inch ..	11/10 inch.		
Staple Strength	Good ..	Good ..	Fair ..	Fair ..	Good ..	Fair ..	Fair ..	Weak.		
Regularity	Regular ..	Regular ..	Regular ..	Irregular ..	Irregular ..	Fair ..	Somewhat irregular	Somewhat irregular.		
Value above or below contract rate ..	Rs. 50 on ..	Rs. 35 on ..	Rs. 20 on ..	Rs. 5 on ..	Rs. 5 off ..	Rs. 15 on ..	Rs. 7 off ..	Rs. 5 on.		
Basis	F. G. M. G. Broach ..	Rs. 162 ..	Rs. 160 ..	F. G. M. G. Broach. No. 2, July-Aug. 1933 delivery. Rs. 207.	F. G. M. G. Broach. Hedge Contract No. 2, April-May 1935 delivery. Rs. 221.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1935 delivery. Rs. 221.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1936 delivery. Rs. 228.	F. G. M. G. Broach. Hedge Contract No. 2, July-Aug. 1937 delivery. Rs. 239.		
Date of Valuation	16-7-30 ..	10-8-31 ..	27-6-32 ..	26-7-33 ..	26-8-34 ..	13-8-35 ..	8-8-36 ..	3-6-37.		
Remarks .. ..	..	..	..	..	..	..	..	..

Table 18.—SPINNING TEST RESULTS FOR UPLAND COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Conds. Control	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										SPINNING ROOM.	TESTING ROOM.	TEMPERATURE HUMIDITY (%).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
					Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Waste.	Yarn Packages per 100 lb. of Spindles	Ring Spinning Speed.	Spindle Revs. per Min.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count-Strips.	Count-Strips.	Counts Actual.	Work of Machine (Inch. Lbs.)	Count-Strips.	Counts Actual.	Counts Actual.				Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	Counts Actual.	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* Diameter of ring frame front roller—1".

† It is to be noted that the total loss is for a small sample weighing 10 lb.; for bulk sample spun under mill conditions it would be less than shown here.

19.—BIJAPUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1156	Bijapur.	Bijapur.	1930-31.
1397	"	"	1931-32.
1892	"	"	1932-33.
2474	"	"	1933-34.
2842	"	"	1934-35.
3324	"	"	1935-36.
3652	"	"	1936-37.
4256	"	"	1937-38.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards : As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

		BIJAPUR.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	.. Creamy-white.	Dull creamy	Dullish creamy	Creamy-white.	Creamy-white.	Creamy	Creamy	Creamy	Creamy-white to creamy.
..	.. Very leafy	Leafy; somewhat stained.	..	Very leafy	Very leafy	Leafy	..	Leafy	.. Very leafy.
..	.. Full-bodied	Poorish soft	Good	Good	Poorish	Fairly good	Good	..	Fair.
d nepplacess	..	A good deal knotted.	Somewhat knotted.	Well-ginned	Well-ginned	A little knotted.	Well-ginned	..	Well-ginned.
..	.. 2% ginned and unginned.	0.75% ginned and unginned.	0.6% ginned and unginned.	..	..	Some seeds	0.35 per cent	..	A few ginned.
..	.. Fairly clean	A little leafy	Clean	Fairly leafy	Little leafy	Almost clean	Leafy	..	A little leafy.
..	.. Even and free of nep.	Fairly good	Even and nep-free.	Good	Good	Good	Good	Good	Good; quite free of neps.
en flat strips	10.5 grams	22.1 grams	15.0 grams	21.0 grams	22.3 grams	15.4 grams	10.1 gram	..	16.4 grams.
..	.. Fully pressed	..	..	..	..	..	..	..	..

Yarn :—

		BIJAPUR.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	.. Clean	Somewhat leafy.	Clean	A little leafy	Fairly clean	Almost clean	Leafy	..	Fairly clean.
..	.. Somewhat uneven.	Even in lower counts only.	Fairly even	Fairly even	Even	Very even	Even	..	Even.
..	.. Fairly free of nep.	Fairly free of nep.	Free of nep	Fairly free of nep.	Free of nep	Practically free of nep.	Slightly neppy.	Free of nep.	Free of nep.
..

Spinning Test Details and Results :— See Table 19 on page 57.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BIJAPUR COTTON.

BIJAPUR.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery	F. G. M. G. Branch H. C. No. 2, July/ August 1935 deli- very.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deli- very.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deli- very.	F. G. M. G. Branch H. C. No. 2, July/ August 1937 deli- very.	F. G. M. G. Branch H. C. No. 2, April/ May 1939 delivery.
Class	Fine	Ful good to fine ..	Good	Strict fine	Fine	Fully good to fine ..	Fine	Fine	Fully good.
Colour	Creamy	Brownish	Reddish brown ..	Brownish	Brownish white ..	Brownish	Creamy brownish ..	Brownish	Brownish gray.
Staple Length	13/10 inch	2 1/4 inch	5/8 inch	3/4 inch	11/16 inch	3/4 inch	11/16 inch	11/16 inch	11/16 inch.
Staple Strength	Fair	Fair	Fair	Fair	Poor	Moderate	Weak	Weak	Weak.
Regularity	Irregular	Regular	Irregular	Fair	Irregular	Fairly regular ..	Irregular	Irregular	Fairly regular.
Value above or below contract rate ..	Rs. 15 1/4	Rs. 3 on	Rs. 15 off	Rs. 25 off	Par	Rs. 22 off	Rs. 7 off	Rs. 7 off	Par.
Insol	Rs. 102	Rs. 108	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery Rs. 224.	F. G. M. G. Branch H. C. No. 2, July/ August 1935 deli- very, Rs. 224.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deli- very, Rs. 228.	F. G. M. G. Branch H. C. No. 2, July/ August 1937 deli- very, Rs. 239.	F. G. M. G. Branch H. C. No. 2, April/ May 1939 delivery, Rs. 191.	F. G. M. G. Branch H. C. No. 2, April/ May 1939 delivery, Rs. 191.
Date of Valuation	10-8-31	13-7-32	26-7-33	20-8-34	20-8-35	8-8-36	3-6-37	10-6-38.	10-6-38.
Remarks .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .

Table 19.--SPINNING TEST RESULTS FOR BIJAPUR COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	County Notation.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE AND HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	L.S.A.			BALLISTIC.			Turns per inch, Actual.	Spiraling Room.	Spiraling Room.	Relative Humidity (%).		
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Ringing (inch-lbs.)	Count-Work Product.					Evenness Class.	Nodes per yard.
1156	Bijapur ..	1930-31	15-8-31	20 A	10	12.3	11.0	0.6	22.5	91	157	7,700	5.83	17.08	10.4	57.8	1,041	10.9	101.2	2,074	5	2.0	17.2	86	73	70
1156	Bijapur ..	1930-31	15-8-31	20 C		..	..	..	..	80	179	9,700	5.95	20.27	20.3	59.8	1,211	20.4	103.0	2,101	5	1.7	19.2	86	70	81
1397	Bijapur ..	1931-32	21-7-32	12	10	15.0	13.9	0.6	29.1	51	188	7,250	1.13	13.02	12.2	94.7	1,204	12.0	205.4	2,403	3	1.8	13.5	87	70	80
1397	Bijapur ..	1931-32	10-7-32	16		..	..	..	..	48	175	7,800	5.22	15.07	15.9	65.7	1,099	10.1	121.0	1,000	4	1.5	15.4	86	70	70
1522	Bijapur ..	1932-33	4-9-33	16	10	18.1	9.5	0.6	20.4	102	152	8,000	5.43	15.07	16.0	70.0	1,130	10.1	125.0	2,022	4	0.5	15.1	86	72	70
1522	Bijapur ..	1932-33	4-9-33	20 A		..	..	..	..	189	181	9,000	5.81	17.08	10.1	53.8	1,053	10.6	102.8	2,015	5	1.0	17.0	87	70	75
2174	Bijapur ..	1932-34	5-9-34	16	10	13.1	13.0	0.4	21.8	19	192	8,250	5.43	15.07	15.0	92.1	1,137	13.7	118.0	2,324	4	1.8	15.4	85	73	73
2174	Bijapur ..	1932-34	5-9-34	20 A		..	..	..	..	57	187	9,200	5.81	17.09	19.7	64.3	1,207	10.9	107.2	2,133	5	1.5	17.2	84	77	73
2342	Bijapur ..	1934-35	5-9-35	16	10	11.9	12.8	0.3	23.1	42	193	8,700	5.43	15.07	16.2	90.0	1,091	15.0	182.1	2,000	3	1.0	15.4	85	74	70
2342	Bijapur ..	1934-35	10-9-35	20 A		..	..	..	..	31	177	8,750	5.57	17.08	19.3	81.5	1,373	19.2	133.8	2,509	1	0.8	17.0	86	70	82
2342	Bijapur ..	1934-35	18-9-35	20 B		..	..	..	..	16	190	9,400	5.68	19.20	20.0	81.4	1,012	19.0	123.1	2,103	3	1.5	18.4	85	73	70
3324	Bijapur ..	1935-36	19-8-36	14	10	11.9	10.6	0.3	21.5	22	193	8,500	5.55	14.08	11.7	81.1	1,192	11.5	182.1	2,013	3	0.8	14.0	80	72	75
3324	Bijapur ..	1935-36	20-8-36	16		..	..	..	..	12	194	8,450	6.25	15.07	16.2	71.0	1,169	10.2	145.8	2,362	3	0.5	15.4	85	74	70
3324	Bijapur ..	1935-36	19-8-36	20 B		..	..	..	..	21	191	10,200	5.60	19.56	10.7	68.7	1,737	29.0	116.2	2,324	3	1.0	19.7	86	72	70
3652	Bijapur ..	1936-37	8-6-37	14	10	13.8	10.0	0.4	22.7	0	190	7,750	5.19	14.08	14.0	94.7	1,326	13.7	181.0	2,521	3	1.5	14.3	91	65	68
3652	Bijapur ..	1936-37	10-6-37	16		..	..	..	..	54	191	8,200	4.89	13.07	10.7	67.1	1,121	10.6	130.0	2,108	1	1.2	13.3	91	67	70
3652	Bijapur ..	1936-37	10-6-37	20 B		..	..	..	..	26	192	10,200	6.14	19.56	20.6	56.2	1,158	20.7	101.9	2,163	4	1.2	18.2	91	68	74
4256	Bijapur ..	1937-38	27-9-38	14	10	14.0	10.2	0.1	23.0	15	219	8,900	5.32	14.08	13.8	103.3	1,457	13.8	189.0	2,594	3	0.5	14.2	89	68	73
4256	Bijapur ..	1937-38	27-9-38	16		..	..	..	..	24	203	9,200	5.10	13.07	15.8	80.0	1,410	15.0	155.2	2,408	1	0.5	15.2	80	66	81

* Diameter of ring frame front roller—2". Diameter of rings—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

20.—BAGALKOTE COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1157	Bagalkote	Bagalkote	1930-31
1433	"	"	1931-32
1893	"	"	1932-33
2460	"	"	1933-34
2840	"	"	1934-35
3391	"	"	1935-36
3653	"	"	1936-37
4257	"	"	1937-38

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* :—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		BAGALKOTE.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	.. ..	Creamy	.. Creamy-white.	Creamy	.. Dull-h creamy.	Creamy	.. Creamy-white.	Creamy	.. White to creamy-white.
Cleanliness	.. ..	Leafy	.. Leafy; slightly stained.	.. Somewhat stained; leafy.	.. Leafy	.. Leafy	.. Leafy	.. Leafy	.. Very leafy.
Feel	.. ..	Good	..	.. Good	..	.. Fairly good	.. Good	.. Good-bodied	.. Fair.
Ginning and nappiness	.. ..	..	.. Well-ginned	.. Fairly well-ginned.	..	.. Good deal knotted and nepped ginning.	.. Well-ginned	..	.. Well-ginned.
Seeds	.. ..	.. A fair amount of cut seed; 1.9% ginned and unginned.	.. 0.75% unginned.	.. 1.2% ginned and unginned.	.. 2.07% partly ginned seeds and lapses.	..	.. 1.83% full clean seed.	.. Ginned and unginned 0.70%	.. A few ginned.
Cont Silver	.. ..	.. Fairly clean	.. Almost clean	.. Clean	.. A little leafy	.. Fairly clean	.. A little leafy	.. A little leafy	.. Leafy.
Card Web	.. ..	.. Even and free of nep.	.. Fairly good	.. Even and nep-free.	..	.. Somewhat neppy.	.. Good	.. Good; nep-free	.. A trifle neppy.
Weight of 10 flat strips.	.. ..	.. 21.2 grams	.. 19.2 grams	.. 10.5 grams	.. 24.4 grams	.. 27.0 grams	.. 17.5 grams	.. 14.1 grams	.. 10.7 grams.
Remarks	.. ..	.. A trifle knotty.	.. Ring frame run at unusually low speed due to excessive breakages.	..	..	..	..	..	..

(b) Yarn :—

		BAGALKOTE.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	.. ..	.. Slightly leafy	.. Fairly clean	.. Clean	.. Almost clean	.. Fairly clean	.. A little leafy	.. Fairly leafy	.. A little leafy.
Evenness	.. ..	.. Fairly even	.. Unusually uneven.	.. Fairly even	.. Fairly even	.. Even	.. Even	.. Even	.. Even.
Neppiness	.. ..	.. Fairly free of nep.	.. Almost nep-free	.. Almost free of nep.	.. Almost free of nep.	.. Somewhat neppy.	.. Almost free of nep.	.. Almost free of nep.	.. Free of nep.
	.. ..	..	.. A good deal shabby.	..	..	.. A trifle shabby.	..	..	..

3. Spinning Test Details and Results :—See Table 20 on page 60.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BAGALKOTE COTTON.

[illegible]

Table 20.—SPINNING TEST RESULTS FOR BAGALKOTE COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAMES PARTICULARS.*				YARN TEST RESULTS.										TENDER-ARM COUNT (P.L.)	RELATIVE HUMIDITY (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Tens.			Deterior.			Twines per Inch, Actual.	Steps per yard.	Twines Class.			Counts Actual.	Counts Strength (inch-lb.)	Counts Strength Product.	
															Counts Actual.	Strength (lbs.)	Counts Strength Product.	Counts Actual.	Waste of Flypore (inch-lb.)	Counts Work Product.									
1157	Bagalkote.	1930-31	14-8-31	20A	10	13.6	12.2	0.6	24.5	57	164	8100	6.03	17.08	10.9	57.0	1134	20.3	104.6	2152	5	2.2	17.3	85	78	80	85	78	80
1157	Bagalkote.	1930-31	14-8-31	20C						63	100	10850	6.19	20.23	20.0	66.1	1222	20.2	106.5	2157	4	2.0	16.4	87	74	70	87	74	70
1433	Bagalkote.	1931-32	20-8-32	12	9	13.7	14.8	0.8	27.1	124	164	6000	4.50	14.05	12.0	56.6	679	12.1	131.5	2236	5	1.2	14.2	69	70	72	69	70	72
1433	Bagalkote.	1931-32	25-8-32	16B						150	120	6000	5.00	10.97	15.8	31.3	542	15.9	117.0	1870	0	1.5	10.3	89	71	70	89	71	70
1433	Bagalkote.	1931-32	20-8-32	20C						173	110	6200	5.81	20.23	19.2	25.8	495	18.8	95.4	1791	7	1.0	19.4	80	70	60	80	70	60
1893	Bagalkote.	1932-33	4-9-33	16A	10	13.8	11.7	0.3	24.1	55	182	8000	5.23	15.07	15.6	93.3	1455	16.0	137.2	2103	4	1.5	15.3	86	72	74	86	72	74
1893	Bagalkote.	1932-33	4-9-33	16B						18	193	8900	5.31	16.97	15.8	93.1	1555	16.0	147.4	2339	4	1.8	10.0	87	67	78	87	67	78
2400	Bagalkote.	1933-34	23-8-34	16A	10	15.0	14.0	0.3	27.1	12	188	8250	5.53	15.97	16.4	84.5	1350	16.4	123.2	2260	4	1.8	15.5	84	77	80	84	77	80
2400	Bagalkote.	1933-34	22-8-34	20A						47	175	8450	5.83	17.03	19.9	64.6	1256	19.7	109.1	2156	4	2.2	17.3	84	76	78	84	76	78
2400	Bagalkote.	1933-34	22-8-34	20B						21	188	9800	5.83	16.26	19.8	50.2	1113	19.9	112.4	2229	4	2.0	18.8	85	74	74	85	74	74
2840	Bagalkote.	1934-35	3-9-35	16A	10	11.2	15.2	0.3	24.9	18	193	8500	5.55	15.97	16.7	110.2	1400	16.4	102.8	3162	3	4.0	15.4	84	73	73	84	73	73
2840	Bagalkote.	1934-35	3-9-35	20A						16	180	8550	5.91	17.04	20.5	70.7	1631	20.4	120.4	2666	4	3.5	17.2	85	77	72	85	77	72
2840	Bagalkote.	1934-35	3-9-35	20B						5	189	9600	5.93	19.26	20.0	90.0	1600	20.1	123.6	2935	4	2.8	18.5	85	74	71	85	74	71
2840	Bagalkote.	1934-35	17-9-35	24						36	176	9550	7.22	19.73	25.5	56.6	1443	25.4	97.0	2161	4	3.2	19.0	84	70	70	84	70	70
3391	Bagalkote.	1935-36	7-10-36	16	10	14.5	12.2	0.4	25.2	12	194	8900	5.43	15.97	16.1	85.7	1350	16.4	123.2	2268	3	1.2	15.0	89	72	70	89	72	70
3391	Bagalkote.	1935-36	5-10-36	20A						10	170	8500	5.95	17.04	20.1	61.2	1250	20.6	108.4	2233	4	1.2	17.2	89	70	71	89	70	71
3391	Bagalkote.	1935-36	6-10-36	20B						42	194	10200	6.07	19.26	20.1	72.2	1451	20.6	110.6	2278	4	1.0	18.5	90	70	72	90	70	72
3653	Bagalkote.	1936-37	11-6-37	14	10	14.4	8.1	0.2	21.5	0	208	6150	5.24	11.94	14.0	104.5	1463	14.7	189.2	2502	3	0.8	11.5	91	60	73	91	60	73
3653	Bagalkote.	1936-37	10-6-37	16A						12	191	8320	4.77	15.97	15.6	69.2	1402	15.9	147.4	2250	3	0.5	15.0	92	64	73	92	64	73
3653	Bagalkote.	1936-37	11-6-37	20B						10	190	10200	6.14	19.26	20.3	64.3	1336	20.6	111.8	2259	4	0.2	18.5	91	60	78	91	60	78
4257	Bagalkote.	1937-38	27-6-38	16A	10	12.3	11.8	0.5	23.1	6	206	9100	5.61	15.97	15.4	111.8	1722	15.3	106.2	2910	3	0.2	12.3	90	67	81	90	67	81
4257	Bagalkote.	1937-38	28-6-38	20B						47	207	10800	6.16	16.24	20.2	70.9	1614	20.6	120.6	2491	3	0.5	13.5	90	64	84	90	64	84

* Diameter of ring-frame front roller—1½". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

21.—CAMBODIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
762	Cambodia.	Coimbatore.	1929-30.
1159	"	Tirupur.	1930-31.
1398	"	"	1931-32.
1894	"	"	1932-33.
2436	"	"	1933-34.
2839	"	"	1934-35.
3390	"	"	1935-36.
3701	"	"	1936-37.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Creamy-white to creamy; bright.	Creamy-white; bright.	Creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
.. ..	Clean ..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean; a trifle stained.
.. ..	Good bodied ..	Very good ..	Good ..	Good-bodied ..	Good ..	Softish smooth.	Good-bodied ..	..
.. ..	Napped and knotted.	Well-ginned ..	Fairly well-ginned.	Fairly well-ginned.	A little knotted in ginning.	A little knotted in ginning.	Fairly well-ginned.	A little knotted.
.. ..	..	..	..	..	1% full seeds...	Some unginned	..	A few full ginned seeds.
.. ..	..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..
.. ..	A little neppy.	A trifle neppy.	Fairly good ..	Fairly good ..	Even and somewhat neppy.	Fairly good ..	A little neppy.	Neppy.
10 flat strips	22.1 grams.	25.3 grams.	22.2 grams	27.8 grams.	29.8 grams.	31.0 grams.	21.2 grams.	26.0 grams.
..

(b) Yarn :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean ..	Clean ..	Clean ..	Clean ..	A little leafy ..	Clean ..	Almost clean ..	Fairly clean.
.. ..	Fairly even ..	Even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Even in the 20's only.	Fairly even.
.. ..	Fairly neppy ..	A little neppy.	A little neppy.	Somewhat neppy.	Somewhat neppy.	Somewhat neppy.	Fairly neppy ..	Neppy.
.. ..	..	..	..	..	..	..	..	A little slubby.

Spinning Test Details and Results :—See Table 21 on page 63.

II.—REPORT OF THE STANDARDS COMMITTEE FOR CAMBODIA COTTON.

CAMBODIA:

[illegible]

Table 21.—SPINNING TEST RESULTS FOR CAMBODIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lb.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.								TEMPERATURE OF ROOM (°F.)	RELATIVE HUMIDITY (%)			
						Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breaks per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle R. P. M.	Draft.	Turns per In.	I.P.A.		BALLISTIC.		Tensile Class.	Keps per yard.	Turns per Inch, Actual.					
															Counts Actual.	Strength (lb.)	Count-Strength	Counts Actual.						Work of Impure (inch—lb.)	Count-Work Product.	
702	Cambodia ..	1929-30	10-6-30	21	10	5.6	11.3	0.6	16.7	10	175	..	5.05	19.73	23.6	61.4	1529	23.6	102.4	2117	1	5.5	19.0	91	69	71
703	Cambodia ..	1929-30	20-6-30	30A		..	..	..	..	30	160	..	7.50	21.86	30.0	16.4	1392	30.0	68.6	2033	5	5.7	21.1	89	63	76
1159	Cambodia ..	1930-31	18-8-31	21	10	5.8	12.6	0.5	18.0	31	180	9700	5.91	19.73	23.3	73.0	1722	23.3	118.8	2769	3	3.5	18.8	84	76	82
1159	Cambodia ..	1930-31	18-8-31	30B		..	..	..	..	22	160	9700	7.30	21.11	30.1	53.6	1013	29.5	90.4	2667	4	1.7	22.1	84	78	80
1393	Cambodia ..	1931-32	20-7-32	21	10	5.6	11.7	0.4	16.8	29	178	9600	5.76	19.73	21.5	68.6	1012	23.5	113.0	2979	3	2.8	19.2	85	77	78
1393	Cambodia ..	1931-32	20-7-32	30A		..	..	..	..	26	158	9650	7.22	21.86	29.5	51.4	1516	29.5	86.0	2555	1	3.5	21.1	86	76	82
1894	Cambodia ..	1932-33	30-8-33	21	10	5.5	13.8	0.4	18.2	55	178	9600	5.53	19.73	23.6	65.0	1518	21.2	110.0	2662	1	3.5	19.1	87	70	66
1894	Cambodia ..	1932-33	30-8-33	30A		..	..	..	..	70	162	9700	7.03	21.86	29.9	15.2	1331	30.1	82.2	2171	5	3.8	20.0	88	68	68
2136	Cambodia ..	1933-34	9-8-34	20	10	7.5	14.6	0.4	21.3	10	167	9550	5.84	17.93	20.0	83.6	1672	20.6	133.2	2661	3	5.2	17.3	84	80	82
2136	Cambodia ..	1933-34	9-8-34	30A		..	..	..	..	13	162	9500	6.71	21.86	30.8	16.1	1129	30.7	89.0	2518	5	4.2	21.4	84	80	82
2636	Cambodia ..	1933-34	9-8-34	31		..	..	..	..	19	116	9650	7.13	23.26	33.7	39.6	1335	33.7	75.0	2529	6	4.5	22.6	84	80	82
2839	Cambodia ..	1934-35	4-9-35	20	10	5.0	11.8	0.2	16.2	5	167	9700	6.07	17.93	29.2	91.2	1412	20.6	131.1	2769	3	3.8	17.1	85	72	72
2839	Cambodia ..	1934-35	4-9-35	30A		..	..	..	..	13	158	9700	6.29	21.86	29.8	31.5	1624	29.7	84.6	2631	1	3.5	21.1	86	72	71
2839	Cambodia ..	1934-35	5-9-35	31		..	..	..	..	12	151	9700	7.11	23.26	33.2	47.1	1364	33.5	80.8	2707	5	3.5	22.0	86	71	76
3290	Cambodia ..	1935-36	5-10-36	29	10	5.5	12.1	0.3	17.2	0	166	9550	6.07	17.93	20.0	90.2	1404	20.0	133.1	2664	3	3.5	17.3	89	69	72
3290	Cambodia ..	1935-36	6-10-36	30A		..	..	..	..	15	160	9400	6.03	21.86	29.3	57.0	1670	28.5	90.0	2565	5	3.2	20.9	89	72	72
3290	Cambodia ..	1935-36	7-10-36	31		..	..	..	..	12	116	9400	7.57	23.26	33.2	10.0	1527	32.7	77.2	2524	5	3.8	22.2	89	70	72
3701	Cambodia ..	1936-37	15-7-37	20	10	5.7	12.8	0.5	18.1	21	210	10250	6.28	17.93	29.2	92.0	1858	30.0	131.1	2716	3	1.2	17.1	85	81	78
3701	Cambodia ..	1936-37	17-7-37	30A		..	..	..	..	20	171	10300	6.50	21.86	29.8	51.8	1688	30.5	87.6	2672	5	1.6	20.7	87	78	82
3701	Cambodia ..	1936-37	16-7-37	31		..	..	..	..	24	148	9600	7.13	23.26	31.1	10.2	1589	31.3	80.8	2771	6	4.8	22.1	85	79	82

* Diameter of ring frame front roller—1". † It is to be noted that the total loss is for a small sample weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

22.—TINNEVELLY COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, bales of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1162	Tinnevelly.	Tuticorin.	1930-31
1400	"	"	1931-32
1883	"	"	1932-33
2461	"	"	1933-34
2841	"	"	1934-35
3392	"	Virudanagar.	1935-36
3699	"	"	1936-37
4260	"	Tuticorin	1937-38

I. SPINNING TESTS.

Treatment :—

a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

a) *Cotton* :—

TINNEVELLY.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
.. ..	Creamy-white	White to creamy-white; brightish.	White to creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white.	Creamy-white..	Creamy-white; brightish.	
.. ..	Fairly clean; occasional spots of stain.	Fairly clean ..	Clean ..	Fairly clean ..	Fairly clean ..	Somewhat stained; a little leafy.	Clean ..	A little leafy.	
.. ..	Soft but good..	Good ..	Good ..	Smooth and bodied.	Good ..	Good-bodied ..	Good ..	Good.	
and neppiness	Fairly well-ginned.	Fairly well-ginned.	Well-ginned ..	Slightly knotted.	Well-ginned ..	A little knotted	Knotted ..	A little knotted	
er .. ..	..	..	..	..	..	..	Some ..	..
.. ..	Practically clean	Almost clean ..	Clean ..	Fairly clean ..	Clean ..	Almost clean ..	Good ..	Leafy.	
.. ..	Even and free of nep	Almost free.	Good ..	A little neppy..	Good ..	Good ..	Good; neppy	A little neppy.	
10 flat strips	19.0 grams	20.6 grams	22.4 grams	27.2 grams	26.1 grams	16.7 grams	29.0 grams	18.5 grams	
..	

b) *Yarn* :—

TINNEVELLY.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	A trifle leafy	Clean ..	Clean ..	Almost clean ..	Fairly clean ..	Fairly clean ..	A little leafy	A little leafy.
.. ..	Fairly uneven.	Fairly even ..	Fairly even ..	Fairly even ..	Even ..	Even ..	Even ..	Even.
.. ..	Neppy	Free of nep	Free of nep	Fairly free of nep	Fairly free of nep	A little neppy..	Neppy	A little neppy.
.. ..	..	..	..	..	Somewhat slubby.	..	..	..

Spinning Test Details and Results :—See Table 22 on page 66.

II.—REPORT OF THE STANDARDS COMMITTEE FOR TINNEVELLY COTTON.

TINNEVELLY.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1935 delivery.	F. G. M. G. Branch No. 2, April/May 1937 delivery.	F. G. M. G. Branch No. 2, July/Aug. delivery.	F. G. M. G. Branch No. 2, April/May 1939 delivery.
Class	Fully good to fine ..	Superfino ..	Superfine ..	Strict Fully good ..	Fine ..	Fully good to fine ..	Fully good ..	Fully good.
Colour	Creamy-grey ..	Creamy-white ..	Greyish-white ..	Creamy-white ..	Whitish ..	Creamy-white ..	Creamy ..	Creamy.
Staple Length	3/4 inch ..	7/8 inch ..	13/16 inch ..	Full 13/16 inch ..	3/4 inch ..	3/4 inch ..	3/4 inch ..	3/4 inch.
Staple Strength	Weak ..	Fair ..	Good ..	Fair ..	Fair ..	Fair ..	Fair ..	Weak.
Regularity	Very irregular ..	Regular ..	Regular ..	Irregular ..	Irregular ..	Irregular ..	Irregular ..	Irregular.
Value above or below contract rate ..	Rs. 30 on ..	Rs. 25 on ..	Rs. 40 on ..	Rs. 25 on ..	Rs. 30 on ..	Rs. 5 on ..	Rs. 35 on ..	Rs. 10 on.
Basis	Rs. 143 ..	Rs. 108 ..	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery, Rs. 207.	F. G. M. G. Branch No. 2, July/Aug. 1934 delivery, Rs. 220.	F. G. M. G. Branch No. 2, July/Aug. 1935 delivery, Rs. 224.	F. G. M. G. Branch No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Branch No. 2, July/Aug. delivery, Rs. 225.	F. G. M. G. Branch No. 2, April/May 1939 delivery, Rs. 151.
Date of Valuation	25-8-31 ..	13-7-32 ..	26-7-33 ..	13-8-34 ..	20-8-35 ..	29-9-36 ..	28-9-37 ..	10-9-38.
Remarks	Poor style for this growth.	..	..	..	..	..	..	..

Table 22.—SPINNING TEST RESULTS FOR TINNEVELLY COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*							YARN TEST RESULTS.										Tearing Room.	Tearing Room.	Tearing Room.	Tearing Room.	Tearing Room.	Tearing Room.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALLISTIC.				Steps per yd.	Breakers Class.	Turns per inch Actual.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
															Counts Actual.	Strength (lvs.)	Count-String (lb.)	Count-Work Product.	Counts Actual	Word of Impure (lb.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
102	Tinnevely	1890-91	2-9-91	16A	10	6.1	10.3	0.6	10.6	100	152	7,350	6.03	15.07	15.0	53.0	811	127.8	1,661	4	15.0	85	75	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

* Diameter of ring frame front roller : $\frac{3}{4}$ ". Diameter of spig : $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample spun under mill conditions it would be less than shown here.

23.—KARUNGANNI COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1160	Karunganni	Virudanagar.	1930-31
1399	"	Tuticorin.	1931-32
1895	"	"	1932-33
2476	"	Tirupur.	1933-34
2843	"	Tuticorin.	1934-35
3393	"	Virudanagar.	1935-36
3700	"	Tuticorin.	1936-37
4259	"	"	1937-38

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

	KARUNGANNI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Creamy-white; bright.	Creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.	Creamy-white.
.. ..	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Fairly clean.	Clean; a little stained.	Fairly clean.	A little leafy.
.. ..	Good.	Good.	Good-bodied.	Good soft.	Good smooth.	Good smooth.	Good smooth.	Good.
and neppiness	Well-ginned.	Well - ginned apart from some knottiness.	Well-ginned.	Slightly knotted in ginning.	Fairly well-ginned.	Well-ginned.	A little knotted.	Knotted.
..
.. ..	Almost clean.	Clean.	Clean.	Fairly clean.	Almost clean.	Fairly clean.	Clean.	Fairly clean.
.. ..	Practically free of nep.	Fairly good.	Good.	Somewhat neppy.	Good.	Good.	Neppy.	Neppy.
10 flat strips	21.7 grams.	20.7 grams.	19.6 grams.	20.3 grams.	23.0 grams.	15.3 grams.	33.6 grams.	19.9 grams.
..

Yarn :—

	KARUNGANNI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Practically clean.	Clean.	Clean.	Fairly clean.	Clean.	Almost clean.	A little leafy.	A little leafy.
.. ..	Fairly even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.	Even.	Even.
.. ..	Somewhat neppy.	Somewhat neppy.	Free of nep.	Somewhat neppy.	Fairly neppy.	Fairly neppy.	Neppy.	Neppy.
.. ..	..	..	A trifle slubby.	..	A trifle slubby.	..	..	..

*Spinning Test Details and Results :—*See Table 23 on page 69.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KARUNCANNI COTTON.

KARUNCANNI.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1935 delivery.	F. G. M. G. Branch No. 2, April/May 1935 delivery.	S. M. G. Branch No. 2, July/August 1935 del. very.	F. G. M. G. Branch No. 2, April/May 1937 delivery.	F. G. M. G. Branch No. 2, July/August 1937 del. very.	F. G. M. G. Branch No. 2, April/May 1939 delivery.	
Class	Fine.	Extra superfine.	Superfino.	About fine.	Strict fine.	Fine.	Strict fine.	Fully good to fine.	
Colour	White to creamy.	Whitish.	Slightly creamy-white.	Creamy.	Whitish.	Creamy-white.	Whitish.	Creamy.	
Staple length	15/16 inch.	15/16 inch.	7/8 inch.	7/8 inch.	7/8 inch.	7/8 inch.	29/32 inch.	7/8 inch.	
Staple strength	Good.	Good.	Good.	Fair.	Good.	Fair.	Fair.	Soft.	
Regularity	Regular.	Regular.	Regular.	Fair.	Irregular.	Regular.	Irregular.	Irregular.	
Value above or below contract rate ..	Rs. 55 en.	Rs. 35 en.	Rs. 45 en.	Rs. 35 en.	Rs. 50 en.	Rs. 20 en.	Rs. 60 en.	Rs. 25 en.	
Basis	Rs. 102.	Rs. 108.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery, Rs. 207.	F. G. M. G. Branch No. 2, April/May 1933 delivery, Rs. 221.	F. G. M. G. Branch No. 2, July/August 1935 del. very, Rs. 221.	F. G. M. G. Branch No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Branch No. 2, July/August delivery, Rs. 222.	F. G. M. G. Branch No. 2, April/May 1939 delivery, Rs. 151.	
Date of Valuation	10-8-31.	13-7-32.	26-7-32.	29-8-34.	20-8-35.	29-9-36.	30-6-37.	19-9-38.	
Remarks .. ..	..	..	..	..	..	..	..	..

Table 23.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TEMPERATURE HYGROMETRY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALISTIC.			Spiraling Room.	Spiraling Room.				
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.)	Count-work Product.			Evenness Class.	Neeps per yard.	Turns per inch Actual.	
1100	Karunganni.	1930-31	17-8-31	20	10	5.9	11.0	0.6	10.8	97	100	9,100	5.95	17.08	20.1	62.5	1,275	20.3	120.8	2,432	4	2.5	17.2	84	79	82
1160	Karunganni.	1930-31	18-8-31	24		..	..	..	..	71	100	8,900	6.07	10.73	23.6	56.1	1,321	21.5	103.6	2,538	5	5.0	10.0	85	77	79
1399	Karunganni.	1931-32	20-7-32	20	10	5.8	11.4	0.6	17.0	135	180	9,300	5.81	17.08	19.0	63.3	1,200	20.2	117.2	2,307	4	3.0	17.2	87	70	83
1399	Karunganni.	1931-32	21-7-32	24		..	..	..	..	118	150	8,800	6.13	10.73	23.7	50.0	1,206	23.5	101.4	2,453	5	3.2	18.8	86	77	85
1803	Karunganni.	1932-33	20-8-33	16	10	6.9	10.0	0.6	17.2	152	184	8,200	5.33	13.97	15.7	69.4	1,000	15.8	120.6	2,048	4	0.5	15.3	87	68	69
1895	Karunganni.	1932-33	30-8-33	20		..	..	..	..	223	160	8,000	5.33	17.08	19.5	50.0	975	19.5	106.2	2,071	5	1.0	17.2	88	67	68
2476	Karunganni.	1933-34	5-9-34	16	10	7.5	13.3	0.3	20.1	0	192	8,250	5.53	15.07	10.0	91.2	1,507	16.0	163.2	2,505	3	3.5	15.5	85	78	74
2476	Karunganni.	1933-34	5-9-34	20		..	..	..	..	52	188	9,250	6.22	17.08	20.1	63.0	1,281	20.0	115.6	2,312	4	4.0	17.3	83	81	71
2843	Karunganni.	1934-35	9-9-35	16	10	6.2	13.8	0.3	19.4	30	193	8,700	5.61	15.07	16.2	111.8	1,800	15.8	200.0	3,312	4	3.2	15.5	86	74	80
2843	Karunganni.	1934-35	10-9-35	20		..	..	..	..	16	194	9,500	5.95	17.08	19.9	81.0	1,630	20.1	139.6	2,806	4	3.8	17.4	84	71	83
3383	Karunganni.	1935-36	7-10-36	16	10	4.4	9.5	0.4	13.8	24	200	8,800	5.51	15.07	15.7	107.1	1,691	15.8	207.2	3,274	3	4.0	15.2	89	72	70
3383	Karunganni.	1935-36	8-10-36	20		..	..	..	..	10	180	8,800	6.05	17.08	19.7	80.2	1,580	10.0	111.0	2,818	3	3.8	17.2	88	72	72
3700	Karunganni.	1936-37	15-7-37	16	10	6.8	18.3	0.2	24.0	12	198	8,800	5.55	15.07	16.0	98.6	1,578	16.2	180.4	3,020	3	4.2	15.3	83	83	76
3700	Karunganni.	1936-37	14-7-37	20		..	..	..	..	16	101	9,500	5.78	17.08	20.2	72.8	1,471	20.0	139.0	2,720	3	5.2	17.2	84	83	78
4259	Karunganni.	1937-38	20-9-38	16	10	7.0	10.8	0.2	17.2	6	220	9,650	5.65	15.07	15.0	114.2	1,816	15.7	202.2	3,175	3	4.0	15.3	88	70	82
4259	Karunganni.	1937-38	20-9-38	20		..	..	..	..	0	200	9,700	5.10	17.08	19.8	82.9	1,611	10.7	137.0	2,080	3	4.2	17.2	89	69	70
4259	Karunganni.	1937-38	30-9-38	24		..	..	..	..	11	178	9,700	6.10	10.73	23.0	60.8	1,576	24.0	108.0	2,553	4	3.8	18.9	89	69	84

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

24.—A. R. KAMPALA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, for inspection and approval by their Special Appeal Committee on African Cottons in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1130	A. R. Kampala (K.L.A.)	1930-31
1498	A. R. Kampala (K.L.A.)	1931-32
1898	A. R. Kampala (K.L.A.)	1932-33
2464	A. R. Kampala (K.L.A.)	1933-34
2848	A. R. Kampala (B.K.T.)	1934-35
3396	A. R. Kampala (K.L.A.)	1935-36
3675	A. R. Kampala (K.L.A.)	1936-37
4105	A. R. Kampala	1937-38

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Grid-ded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

	KAMPALA.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	White to creamy-white; bright.	Creamy-white; brightish.	White; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; bright.	White to creamy-white.
es ..	Clean.	Very clean.	Clean.	Clean.	Clean.	Clean.	Very clean.	Very clean.
..	Good silky.	Good silky.	Good silky.	Smooth bodied.	Good Smooth.	Good silky.	Good bodied.	Soft.
& neppiness	Trifle too knotted and nepped.	A little knotted.	S o m e w h a t knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..
er ..	Clean.	Clean.	Clean and silky	Clean.	Clean.	Clean.	Good; clean.	Clean.
b ..	Fairly neppy.	A little neppy.	A little neppy.	A little cloudy.	Good even.	Good.	Good; free of nepp.	Fairly free of nepp.
of 20 flat-trips	19.3 grams.	19.2 grams.	21.5 grams.	25.2 grams.	14.2 grams.	12.7 grams.	14.0 grams.	16.4 grams.
..

(b) *Yarn :—*

	KAMPALA.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
es ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
ss ..	Even.	Even.	Very even.	Very even.	Very even.	Very even.	Even.	Even.
ss ..	Somewhat neppy.	A trifle neppy.	Practically free of nepp.	Fairly neppy.	Nepp-free.	Somewhat neppy.	Free of nepp.	Fairly free of nepp.
s ..	..	..	..	..	..	..	..	..

*Spinning Test Details and Results :—*See Table 24 on page 72.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. KAMPALA COTTON.

71

KAMPALA.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/May 1933 delivery.	F. G. M. G. Broach No. 2, July/August 1933 delivery.	F. G. M. G. Broach H. C. No. 2, July/August 1934.	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery.	F. G. M. G. Broach H. C. No. 2, April/May 1937 delivery.	F. G. M. G. Broach H. C. No. 2, July/August delivery.	F. G. M. G. Broach H. C. No. 2, July/Aug. 1938 delivery.
Class	.. ..	Superfine.	Fully good to fine.	Fine to superfine.	Fine.	Strict fine.	Barely fine.	Fine.	Barely fully good.
Colour	.. ..	White.	Bright creamy-white	White.	Creamy-white.	Dull white.	Creamy-white.	Creamy-white.	Whitish.
Staple Length	.. ..	1 1/16".	1 1/16".	1 3/32".	1 3/32".	1 1/32".	1 1/32".	Full 1 1/16".	1 1/16".
Staple Strength	.. ..	Good.	Fair.	Good.	Good.	Fair.	Moderate.	Normal.	Barely good.
Regularity	.. ..	Regular.	Regular.	Regular.	Good.	Regular.	Not quite so regular as Busoga.	Regular.	Slightly irregular.
Value above or below contract rate	.. ..	Rs. 115 on.	Rs. 112 on.	Rs. 145 on.	Rs. 130 on.	Rs. 128 on.	Rs. 136 on.	Rs. 102 on.	Rs. 107 on.
Basis	.. ..	Rs. 177.	F. G. M. G. Broach No. 2, April/May 1933 delivery, Rs. 218.	F. G. M. G. Broach No. 2, July/August 1933 delivery, Rs. 205.	F. G. M. G. Broach H. C. No. 2, July/Aug. 1934 delivery, Rs. 223.	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery, Rs. 194.	F. G. M. G. Broach H. C. No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Broach H. C. No. 2, July/August delivery, Rs. 224.	F. G. M. G. Broach H. C. No. 2, July/August 1938 delivery, Rs. 141.
Date of Valuation	.. ..	16-7-31.	5-10-32.	7-8-33.	15-8-34.	20-8-35.	28-9-36.	18-6-37.	8-6-38.
Remarks*	.. ..	..	Good Sample.	..	..	Staple weak.	1/12 off A. R. Kampala Box.	Neppy.	..

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 24.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAME PARTICULARS. *						YARN TEST RESULTS.						RELATIVE HUMIDITY (%).	RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	TREA.			BALLISTIC.			Steps per yard.			Turns per Inch. Actual.	Spinning Room.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Ring (inch-lb)	Count-Work Product						Deniers Class.
1180	Kampala.	1930-31	29-7-31	20	10	1.1	10.3	0.1	11.3	10	105	9760	5.75	17.09	19.5	115.0	2212	10.3	201.8	3894	12	2.7	17.2	87	73	82
1180	Kampala.	1930-31	29-7-31	30		..	..	..	..	0	158	9050	6.70	21.80	29.0	67.2	1949	20.8	107.2	3101	1	4.5	21.2	86	70	85
1180	Kampala.	1930-31	30-7-31	40		..	..	..	..	8	135	9700	8.03	25.28	39.5	114.8	1730	30.5	60.2	3163	5	2.5	21.6	86	78	83
1498	Kampala.	1931-32	10-10-32	20	10	3.0	10.4	0.2	14.1	0	100	9800	5.81	17.68	20.2	106.0	2153	20.2	103.1	3707	1	2.2	17.2	87	69	69
1498	Kampala.	1931-32	10-10-32	30		..	..	..	..	0	102	9700	6.41	21.80	29.5	63.1	1870	20.2	106.2	3150	4	2.2	21.3	87	68	67
1498	Kampala.	1931-32	11-10-32	40		..	..	..	..	18	139	9700	8.97	25.28	10.5	38.7	1507	30.3	71.2	2910	5	2.0	21.2	87	67	61
1808	Kampala.	1932-33	5-9-33	20	10	5.1	10.0	0.1	14.1	17	105	9600	6.07	17.89	29.0	61.1	1585	20.6	178.8	3643	2	1.2	17.7	86	75	70
1808	Kampala.	1932-33	9-9-33	30		..	..	..	..	3	160	9650	6.03	21.93	29.5	62.2	1611	20.8	111.0	3120	3	1.5	21.1	85	77	70
1808	Kampala.	1932-33	9-9-33	40		..	..	..	..	15	133	9650	8.02	25.24	10.3	41.1	1684	30.9	81.0	2272	1	1.8	21.4	86	76	79
2464	Kampala.	1933-34	31-8-34	20	10	5.0	12.6	0.1	17.1	5	205	10000	5.04	17.04	20.2	109.7	2106	20.2	105.1	3917	2	3.8	17.1	87	70	82
2464	Kampala.	1933-34	31-8-34	30		..	..	..	..	0	103	10000	6.03	21.80	30.0	65.7	1971	20.0	108.1	3112	3	1.2	20.7	86	71	82
2464	Kampala.	1933-34	31-8-34	40		..	..	..	..	2	144	9600	8.71	25.23	39.2	11.1	1720	38.2	92.6	3156	1	5.2	21.3	86	72	86
2464	Kampala.	1933-34	30-8-34	50		..	..	..	..	4	171	10000	10.19	29.10	40.7	31.2	1331	40.3	52.8	2603	5	1.8	27.1	86	72	81
2848	Kampala.	1934-35	10-9-35	30	10	3.1	9.8	0.3	12.0	7	160	9560	7.06	21.46	29.7	61.0	1910	20.1	104.0	3231	3	0.8	21.1	85	70	78
2848	Kampala.	1934-35	11-9-35	40		..	..	..	..	15	138	9600	7.97	25.28	39.1	13.7	1722	20.2	92.0	3150	1	0.5	21.5	85	77	77
2848	Kampala.	1934-35	13-9-35	50		..	..	..	..	14	129	9600	10.10	29.10	50.1	30.1	1508	50.0	51.8	2900	5	0.8	27.1	84	70	67
3190	Kampala.	1935-36	9-10-36	30	10	7.4	8.3	0.2	11.0	0	173	10100	7.11	21.86	30.0	61.2	1941	31.1	101.2	3211	3	2.5	20.9	88	71	66
3300	Kampala.	1935-36	12-10-36	40		..	..	..	..	0	110	10400	7.81	25.28	40.1	19.3	1710	10.1	90.2	3210	1	3.0	21.1	88	65	62
3396	Kampala.	1935-36	13-10-36	50		..	..	..	..	5	139	10100	10.00	29.16	50.5	31.1	1590	22.1	62.0	3230	5	2.8	20.0	88	71	66
3676	Kampala.	1936-37	20-6-37	30	10	2.8	8.1	0.3	11.0	3	180	10200	7.70	20.74	30.8	65.0	2004	30.6	105.0	3231	1	0.8	10.8	89	78	73
3676	Kampala.	1936-37	25-6-37	10		..	..	..	..	7	161	10300	8.07	23.79	39.0	47.3	1915	39.9	81.0	3152	5	0.8	22.0	89	78	78
3676	Kampala.	1936-37	25-6-37	50		..	..	..	..	12	131	10200	9.81	26.75	40.1	32.8	1920	20.7	67.6	3320	6	1.0	25.8	89	77	74
4105	Kampala.	1937-38	21-6-38	20	10	1.7	10.1	0.1	14.0	5	213	10300	6.31	17.98	20.0	113.7	2274	20.1	202.0	4023	2	1.0	17.3	87	75	71
4105	Kampala.	1937-38	22-6-38	30		..	..	..	..	23	165	10400	6.50	20.71	29.6	67.0	1991	20.0	111.2	3325	3	1.5	10.6	88	74	81
4105	Kampala.	1937-38	22-6-38	40		..	..	..	..	12	162	10100	8.89	23.70	41.2	49.4	1743	40.0	78.6	3101	4	0.8	22.7	87	72	81
4105	Kampala.	1937-38	25-6-38	50		..	..	..	..	12	111	10500	11.01	26.75	51.2	30.8	1577	40.1	61.1	3181	6	1.0	20.1	87	73	70

* Diameter of ring frame front roller—1". Diameter of ring—1½".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

25.—A. R. BUSOGA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Special Appeal Committee on African Cottons, in dance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1131	A. R. Busoga (K.G.I.)	1930-31.
1499	A. R. Busoga (N.S.S.)	1931-32.
1897	A. R. Busoga (K.A.L.)	1932-33.
2463	A. R. Busoga (N.W.D.)	1933-34.
2847	A. R. Busoga (K.A.L.)	1934-35.
3395	A. R. Busoga (N.S.S.)	1935-36.
3674	A. R. Busoga	1936-37.
4104	A. R. Busoga	1937-38.

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

		BUSOGA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white; very bright.	Brightish creamy-white.	White to creamy-white; brightish.	Creamy-white; bright.	Creamy-white; bright.	White to creamy-white; brightish.	Creamy-white; bright.	Creamy-white.
s	..	Clean ..	A few spots of stain.	Fairly clean ..	Clean ..	Clean ..	Clean ..	Clean; an occasional stain.	Very clean.
..	..	Soft and silky ..	Soft silky ..	Soft silky ..	Smooth-bodied	Silky ..	Good silky ..	Good silky ..	Soft; silky.
nd neppiness	..	Knotted and nepped.	Somewhat knotted.	Fairly well-ginned.	Fairly knotted.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned.
..	..	Too much cut ..	..	..	..	..	..	..	..
er	..	Clean ..	Clean ..	Silky, bright and clean.	Clean ..	Clean ..	Clean ..	Good; clean.	Soft; clean.
..	..	Much too neppy and uneven.	A trifle neppy.	Good ..	A little neppy.	Good ..	Good ..	Good; full; free of neps.	A little neppy.
10 flat strips.	..	20.7 grams	18.4 grams	20.1 grams	22.5 grams	19.6 grams	14.4 grams	14.0 grams	18.3 grams.
..

(b) *Yarn :—*

		BUSOGA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
s	..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Fairly clean ..	Clean.
..	..	Even ..	Very even ..	Very even in the two lower counts.	Even ..	Even ..	Fairly even ..	Even ..	Even.
..	..	Fairly neppy ..	A little neppy.	Almost free of nep.	Fairly neppy ..	Fairly neppy ..	Neppy ..	Slightly neppy.	Almost free of nep.
..

*Spinning Test Details and Results :—*See Table 25 on page 75.

II. REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. BUSOGA COTTON.

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BUSOGA.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/May 1933 delivery.	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1934 delivery.	F. G. M. G. Broach Hedge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Broach Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1938 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1938 delivery.
Circles	Superfine ..	Fully good ..	Fine ..	Fully good to fine.	Strict fine ..	Fine ..	Barely fine ..	Fine.
Colour	White ..	Creamy-white ..	Dull-white ..	Dull-white and creamy.	Creamy-white ..	Creamy-white ..	Creamy-white ..	Creamy-white.
Staple Length	1 1/8" ..	1 1/16" ..	1 1/16" ..	1 1/16" ..	Full 1 1/16" ..	1 1/16" ..	1 1/16" ..	1 1/16".
Staple Strength	Good ..	Fair ..	Good ..	Good ..	Good ..	Good ..	Good ..	Good.
Regularity	Regular ..	Rather irregular ..	Fairly regular ..	Regular ..	Regular ..	Regular ..	Slightly irregular ..	Good.
Value above or below contract rate ..	Rs. 110 on ..	Rs. 105 on ..	Rs. 138 on ..	Rs. 137 on ..	Rs. 127 on ..	Rs. 135 on ..	Rs. 188 on ..	Rs. 105 on.
Basis	Rs. 177 ..	F. G. M. G. Broach No. 2, April/May 1933 delivery, Rs. 218.	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery, Rs. 205.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1934 delivery, Rs. 223.	F. G. M. G. Broach Hedge Contract No. 2, April/May 1936 delivery, Rs. 194.	F. G. M. G. Broach Hedge Contract No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1938 delivery, Rs. 224.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. 1938 delivery, Rs. 141.
Date of Valuation	16-7-31 ..	5-10-32 ..	7-8-33 ..	15-8-34 ..	27-8-35 ..	28-9-36 ..	10-0-37 ..	8-0-38.
Remarks * .. .. .	..	Fair average sample.	..	..	..	Pass A. R. Busoga.	..	..

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 25.—SPINNING TEST RESULTS FOR BUSOGA COTTON.

1	2	3	4	5	6	7	8	9	10	11	RING FRAME PARTICULARS.*				YARN TEST RESULTS.				TEMPERATURE AND HUMIDITY (%).							
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				Yarn Breakages per 100 spindles	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	I.F.A.			BALLISTIC.			Reveries Class.	Keps per yard.	Turns per Inch. Actual.	Spinning Room.	Spinning Room.	Relative Humidity (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†						Counts Actual.	Strength (lbs.)	Count- Strength Product.	Counts Actual.	Work of Machine (inch-lb.)	Count- Work Product.						
1131	Busoga ..	1930-31 ..	29-7-31	20	8	5.3	12.3	0.6	17.4	20	165	9750	5.73	17.98	10.4	117.3	2276	19.8	109.8	3850	2	5.7	17.1	87	73	85
1131	Busoga ..	1930-31 ..	29-7-31	30		..	..	..	..	0	159	9650	6.67	21.86	20.3	99.1	2025	30.1	113.6	3419	4	5.5	20.0	86	79	86
1131	Busoga ..	1930-31 ..	30-7-31	40		..	..	..	..	21	138	9700	8.89	25.28	30.0	111.1	1720	30.2	82.0	3238	5	5.5	24.3	86	78	83
1409	Busoga ..	1931-32 ..	12-10-32	20	10	5.9	9.6	0.4	15.3	26	166	9700	5.65	17.98	20.7	100.0	2275	20.9	184.8	3855	2	2.2	17.3	89	65	67
1409	Busoga ..	1931-32 ..	11-10-32	30		..	..	..	..	10	163	9700	6.38	21.86	28.6	70.7	2022	28.6	118.2	3381	3	2.2	21.2	88	63	68
1409	Busoga ..	1931-32 ..	11-10-32	40		..	..	..	..	5	139	9700	8.83	25.28	30.5	15.1	1781	39.7	76.8	3169	1	2.8	24.5	87	67	68
1907	Busoga ..	1932-33 ..	5-9-33	20	10	7.5	10.0	0.5	17.1	88	166	9650	5.65	17.98	10.9	85.0	1709	20.1	185.8	3735	2	1.0	17.3	80	74	76
1907	Busoga ..	1932-33 ..	5-9-33	30		..	..	..	..	33	160	9600	6.17	21.86	20.1	61.8	1886	28.6	111.6	3192	3	1.8	21.2	87	74	78
1907	Busoga ..	1932-33 ..	8-9-33	40		..	..	..	..	24	138	9650	8.71	25.28	38.1	37.9	1441	38.1	71.2	2827	5	1.6	24.4	80	75	79
2463	Busoga ..	1933-34 ..	29-8-34	20	10	5.3	11.1	0.2	16.3	0	202	9800	5.81	17.98	20.3	111.3	2259	20.1	186.4	3903	2	1.8	17.1	86	70	74
2463	Busoga ..	1933-34 ..	28-8-34	30		..	..	..	..	3	166	9900	6.47	21.86	30.3	65.8	1994	30.1	104.6	3118	3	1.5	20.5	86	71	73
2463	Busoga ..	1933-34 ..	29-8-34	40		..	..	..	..	7	144	9900	8.56	25.28	41.1	40.8	1977	41.0	75.4	3091	4	4.8	24.0	80	70	72
2463	Busoga ..	1933-34 ..	30-8-34	50		..	..	..	..	2	131	9900	10.18	28.18	49.5	31.0	1534	50.3	51.0	2563	5	1.0	26.9	86	73	74
2847	Busoga ..	1934-35 ..	18-9-35	30	10	3.8	11.7	0.4	15.4	17	164	9650	7.79	21.86	30.2	68.4	2066	30.1	114.8	3490	3	4.5	21.0	85	71	71
2847	Busoga ..	1934-35 ..	16-9-35	40		..	..	..	..	5	138	9650	8.09	25.28	30.2	46.4	1819	40.1	86.8	3601	4	4.2	24.4	83	80	76
2847	Busoga ..	1934-35 ..	13-9-35	50		..	..	..	..	24	125	9600	10.00	28.16	40.9	32.8	1637	48.6	60.6	2694	1	3.8	27.1	83	70	70
3395	Busoga ..	1935-36 ..	9-10-36	30	10	3.8	9.5	0.3	13.2	7	171	10350	7.14	21.86	30.6	71.8	2107	31.5	106.4	3352	1	3.5	20.0	87	71	69
3395	Busoga ..	1935-36 ..	10-10-36	10		..	..	..	..	0	118	10400	7.73	25.28	39.5	50.0	1975	40.9	83.2	3403	5	4.2	21.6	88	72	69
3395	Busoga ..	1935-36 ..	14-10-36	50		..	..	..	..	5	136	10350	9.81	28.16	46.3	35.1	1730	50.8	66.6	3383	5	1.5	27.1	88	70	63
3674	Busoga ..	1936-37 ..	23-6-37	30	10	4.8	8.2	0.4	13.0	23	180	10200	8.09	20.71	30.3	64.4	1951	30.9	103.2	3189	4	2.2	19.8	86	76	78
3674	Busoga ..	1936-37 ..	24-6-37	40		..	..	..	..	12	154	10300	7.73	23.79	30.0	49.1	1915	39.8	83.0	3308	4	2.2	23.0	87	76	78
3674	Busoga ..	1936-37 ..	24-6-37	50		..	..	..	..	12	131	10200	9.81	26.75	50.0	35.1	1765	50.9	66.0	3359	5	2.5	25.8	86	73	78
4104	Busoga ..	1937-38 ..	18-6-38	30	10	3.8	10.1	0.4	13.8	3	185	10400	7.71	20.74	30.2	68.0	2054	30.1	105.8	3185	3	1.0	19.8	80	71	74
4104	Busoga ..	1937-38 ..	20-6-38	40		..	..	..	..	12	164	10400	7.71	23.79	39.7	46.3	1898	39.6	82.0	3247	3	1.2	23.1	89	71	74
4104	Busoga ..	1937-38 ..	20-6-38	50		..	..	..	..	11	142	10500	9.64	26.76	49.4	34.6	1709	49.8	68.0	3380	5	1.2	25.7	88	72	80

* For full sample spun under mill conditions it would be less than shown here.

26.—A. R. JINJA COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Special Appeal Committee on African Cottons, in accordance with an arrangement made with the Association to supply to the Technical Laboratory, for testing, samples of fair average Cotton of the commercial crop.

Sample No.	Cotton.	Season.
1133	A. R. Jinja (K.I.G.)	1930-31
1500	A. R. Jinja (K.U.M.)	1931-32
1896	A. R. Jinja (A.R.A.)	1932-33
2462	A. R. Jinja (R.N.P.)	1933-34
2846	A. R. Jinja (S.R.I.)	1934-35
3394	A. R. Jinja (S.R.I.)	1935-36
3702	A. R. Jinja	1936-37
4106	A. R. Jinja	1937-38

I.—SPINNING TESTS.

Pre-treatment :—

(a) *Blow-room.*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times); the 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Upto 1933-34:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. I possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

JINJA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Creamy-white; bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; brightish.	Creamy-white to white.	White to creamy white.
ss ..	Fairly clean.	Fairly clean.	..	Clean.	Fairly clean	Clean.	Very clean.	Clean.
..	Soft and silky.	Good softish.	Soft silky.	Good silky.	Good silky.	Good silky.	Good silky.	Good soft.
and nep-	Too much knotted and nepped.	Somewhat knotted.	Fairly ginned.	A little knotted	A good deal knotted and nepped	Well-ginned.	Well-ginned.	Well-ginned.
..	..	..	..	..	..	..	..	Occasional undeveloped.
er ..	Clean.	Clean.	Silky, soft and clean.	Clean.	Clean.	Clean.	Good; clean.	Fairly clean.
b ..	Too neppy.	A little neppy.	Good.	Cloudy and neppy.	Somewhat neppy	Good.	Good; nep-free.	Fairly free of nep.
of 10 flat	20.9 grams.	18.3 grams.	19.5 grams.	20.2 grams.	19.5 grams.	17.0 grams.	16.1 grams.	15.3 grams.
..

(b) *Yarn :—*

JINJA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness ..	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.	A trifle leafy.	Clean.	Almost clean.
ss ..	Even.	Even.	Very even.	Even.	Even	Fairly even.	Fairly even.	Even.
ess ..	Neppy.	Somewhat neppy.	Practically free of nep.	Fairly neppy.	Neppy.	Neppy.	Fairly free of nep.	Fairly free of nep.
ness ..	..	..	..	..	Occasionally slubby.	..	..	..
ls ..	..	..	..	..	..	..	..	..

*Spinning Test Details and Results :—*See Table 26 on page 78.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE ON AFRICAN COTTON, A. R. JINJA.

		JINJA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April-May 1933 delivery.	F. G. M. G. Broach No. 2, July-Aug. 1933 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1934.	F. G. M. G. Broach Hedge Contract No. 2, April-May 1936 delivery.	F. G. M. G. Broach Hedge Contract No. 2, April-May 1937 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. delivery.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1938 delivery.
Class	..	Fine	Good to fully good.	Fully good to fine	Fine	Fully good to fine	Fully good	Superfine	Fine.
Colour	..	Creamy	Rather dull with yellow stains.	Dull; somewhat stained.	Creamy-white	Creamy-yellow	Dull and creamy	Creamy-white	Creamy-white.
Staple Length	..	About 1"	1"	1 1/16"	1 1/16"	1 1/32"	1 1/32"	1 1/16"	1 1/16"
Staple Strength	..	Fair	Fair	Good	Good	Fair	Good	Good	Good.
Regularity	..	Fair	Irregular	Fair	Fair	Slightly irregular	Regular	Regular	Good.
Value above or below contract rate	..	Rs. 100 on	Rs. 90 on	Rs. 132 on	Rs. 135 on	Rs. 120 on	Rs. 128 on	Rs. 185 on	Rs. 99 on.
Basis	..	Rs. 189	F. G. M. G. Broach No. 2, April-May 1933 delivery, Rs. 218.	F. G. M. G. Broach No. 2, July-Aug. 1933 delivery, Rs. 265.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1934 delivery, Rs. 223.	F. G. M. G. Broach Hedge Contract No. 2, April-May 1936 delivery, Rs. 194.	F. G. M. G. Broach Hedge Contract No. 2, April-May 1937 delivery, Rs. 221.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. delivery, Rs. 208.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1938 delivery, Rs. 141.
Date of Valuation	..	24-7-31	5-10-32	7-8-33	15-8-34	27-8-35	28-9-36	5-7-37	8-9-38.
Remarks *	..	Poor sample	..	..	..	..	Rs. 5/4 off A. R. Jinja Pass.	Better than average quality.	..

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 26.—SPINNING TEST RESULTS FOR JINJA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Count or Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE AND HUMIDITY (%).						
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, H. P. M.	Spindle Speed, H. P. M.	Draft.	Turns per inch	I.E.A.			BALLENTO.			Twines Class.	Keps per yard.	Turns per inch.	Spinning Room.	Spinning Room.	RELATIVE HUMIDITY (%).
															Count	Strength (lbs.)	Count-Product.	Count	Work of Rupture (inches)	Count-Work Product.						
1137	Jinja	1930-31	30-7-31	20	10	5.3	11.2	0.3	10.2	0	196	9700	6.07	17.03	10.7	100.3	2153	20.1	189.6	3731	2	0.2	17.0	84	82	83
1137	Jinja	1930-31	31-7-31	30		..	..	..	..	7	160	9700	6.89	21.86	23.8	64.3	1892	29.7	105.0	3118	1	7.0	20.7	85	80	70
1133	Jinja	1930-31	31-7-31	40		..	..	..	..	13	138	9650	9.26	25.28	40.4	39.2	1681	40.4	71.8	3022	5	7.0	24.0	84	80	78
1600	Jinja	1931-32	12-10-32	20	10	0.0	9.9	0.1	10.4	62	186	9700	0.07	17.98	19.7	112.4	2214	10.9	192.0	3821	3	5.5	17.0	89	65	68
1600	Jinja	1931-32	11-10-32	30		..	..	..	..	11	161	9700	6.54	21.86	29.6	67.5	1998	29.1	119.2	3469	1	0.0	21.6	88	43	69
1600	Jinja	1931-32	12-10-32	40		..	..	..	..	10	178	9770	8.79	25.28	39.5	43.0	1698	38.1	77.1	2940	1	6.5	21.7	86	62	69
1896	Jinja	1932-33	5-9-33	20	10	5.0	9.8	0.1	15.5	63	196	9650	5.80	17.98	10.9	60.3	1797	20.5	175.1	3390	2	1.8	17.3	86	71	78
1896	Jinja	1932-33	5-9-33	30		..	..	..	..	3	160	9600	6.38	21.86	29.3	68.1	1997	20.4	114.2	3357	3	2.0	21.1	87	71	77
1896	Jinja	1932-33	8-9-33	40		..	..	..	..	2	138	9650	8.07	25.28	38.0	40.7	1683	39.1	79.1	3128	4	1.5	24.3	86	75	80
2162	Jinja	1933-34	28-8-31	20	10	5.6	13.0	0.2	18.0	0	202	9900	6.05	17.98	20.3	112.7	2298	20.2	106.0	3959	2	5.0	17.2	80	70	70
2162	Jinja	1933-34	29-8-31	30		..	..	..	..	0	166	9600	6.54	21.86	29.7	72.4	2160	20.0	115.1	3410	3	4.5	21.3	86	71	77
2462	Jinja	1933-34	29-8-34	40		..	..	..	..	10	141	9600	8.03	25.28	12.2	12.1	1780	11.7	77.6	3230	1	1.5	21.6	80	70	72
2462	Jinja	1933-34	30-8-34	50		..	..	..	..	2	131	9900	10.19	28.16	51.3	32.3	1657	50.7	53.2	2997	5	1.7	27.4	80	73	74
2416	Jinja	1934-35	12-9-35	30	10	5.0	11.6	0.1	16.3	10	163	9700	7.05	21.86	30.7	67.0	2057	30.5	107.4	3270	3	5.5	20.7	85	69	66
2916	Jinja	1934-35	16-9-35	40		..	..	..	..	22	198	9600	7.94	25.28	39.7	47.5	1880	39.6	90.1	3371	4	5.0	24.2	84	80	73
2916	Jinja	1934-35	17-9-35	50		..	..	..	..	10	124	9600	10.20	28.10	51.5	31.0	1643	50.5	53.0	2970	5	5.2	20.0	81	80	60
3304	Jinja	1935-36	8-10-36	30	10	1.4	10.7	0.4	11.0	7	170	10300	7.35	21.86	31.0	70.0	2180	31.1	100.1	3402	1	1.0	21.2	88	72	70
3304	Jinja	1935-36	10-10-36	40		..	..	..	..	7	148	10350	7.58	23.28	39.8	40.1	1900	39.3	86.4	3590	4	3.8	24.4	88	72	66
3304	Jinja	1935-36	13-10-36	50		..	..	..	..	6	138	10400	10.00	28.16	50.0	35.3	1786	50.8	60.1	3373	5	4.2	27.3	87	71	66
3702	Jinja	1936-37	17-7-37	30	10	4.2	9.7	0.4	13.9	13	183	10300	7.34	20.74	30.7	74.2	2278	30.0	108.2	3513	4	1.8	19.9	86	78	70
3702	Jinja	1936-37	19-7-37	40		..	..	..	..	10	164	10300	7.73	23.70	38.7	53.8	2082	40.0	86.0	3410	5	2.0	23.0	86	77	70
3702	Jinja	1936-37	20-7-37	50		..	..	..	..	22	143	10300	10.00	26.75	50.4	36.3	1824	52.4	69.4	3479	6	1.2	25.0	86	79	79
4106	Jinja	1937-38	21-6-38	20	10	6.8	10.2	0.4	10.6	0	210	10400	6.34	17.98	20.2	118.8	2400	20.4	202.0	1133	2	1.2	17.5	88	71	77
4106	Jinja	1937-38	23-6-38	30		..	..	..	..	20	185	10400	6.31	20.71	30.2	70.7	2136	29.0	111.8	3389	3	1.0	20.2	87	71	82
4106	Jinja	1937-39	23-6-38	40		..	..	..	..	7	193	10400	8.39	23.70	39.7	47.3	1876	39.4	82.6	3254	1	1.5	23.3	85	71	78
4106	Jinja	1937-38	29-6-38	50		..	..	..	..	8	145	10500	10.55	26.75	49.9	53.0	1677	50.6	65.0	3310	6	1.0	25.1	87	74	76

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

1.—FARM WESTERNS COTTON.

These samples have been tested by arrangement with the 'Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
1776	Farm Westerns	Bellary	1932-33
2374	Farm Westerns	Bellary	1933-34
2748	Farm Westerns	Adoni	1934-35
3150	Farm Westerns	Adoni	1935-36
3507	Farm Westerns	Adoni	1936-37
3966	Farm Westerns	Adoni	1937-38

I. SPINNING TESTS.

Pre-treatment :—

- (a) *Blow-room.*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once),

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY THE BOMBAY MILLOWNERS' ASSOCIATION.

These samples are the first arrivals of the new crop of each season. In view of the fact that sometimes a mill using a particular style of cotton in one season does not use the same style in the following season, a certain amount of discontinuity has occurred in some of the varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying these samples were requested to furnish their own valuation reports.

10	17.6 grams.	21.5 grams.	17.8 grams.	13.8 grams.	14.0 grams.	15.1 grams.
..

(b) *Yarn :—*

FARM WESTERNS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness	Clean.	Leafy.	Clean.	Almost clean.	Leafy.	A little leafy.
ness	Fairly even.	Fairly uneven.	Even.	Fairly even.	Fairly even.	Fairly even.
ness	A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.	Fairly free of nep.
ness	..	..	..	..	..	..

*Spinning Test Details and Results :—*See Table 1 on page 81.

II.—GRADER'S REPORT* FOR FARM WESTERNS COTTON.

FARM WESTERNS.

		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
		Hedge Contract No. 5	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.	F. G. M. G. Broach No. II.
Contract valued under	..	Good M. G.	Fine.	Fine.	Fine.	Fine.	Fine.
Class ..	..	White.	Light brown.	White brownish.	Brownish white.	White.	Brownish white.
Colour ..	..	7/8 inch.	29/32 inch.	13/16 inch.	7/8 inch.	29/32 inch.	13/16 inch.
Staple Length	..	Moderate.	Good.	Good.	Fair.	Good.	Good.
Staple Strength	..	Slightly irregular.	Good.	Regular.	Slightly irregular.	Fair.	Regular.
Regularity ..	..	Rs. 20 on.	Rs. 25 on.	Rs. 40 on.	Rs. 30 on.	Rs. 20 on.	Rs. 25 on.
Value above or below contract rate ..	..	F. G. Broach April/May 1933.	Rs. 203 July/August Broach.	Rs. 232.	Rs. 203.	Rs. 221.	Rs. 180.
Basis ..	..	15-5-33.	9-7-34.	3-7-35.	20-4-36.	10-2-37.	2-3-38.
Date of Valuation ..	..	Inferior in staple to last year's crop.	..	..	..	..	..
Remarks ..	..					

* Reports since 1932-33, except that of 1934-35, are compiled by the mill supplying the sample.

Table 1.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	RING FRAME PARTICULARS.*				WASTE PERCENTAGES.				YARN TEST RESULTS.						24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, (lbs.)	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Neaps per yard.	Turns per Inch Actual.	Count-Work Product.			Evenness Class.	Spiraling Room.	Spiraling Room.	Relative Humidity (%).			
											Counts Actual.	Strength (lbs.)	Count-Strength Product.	Work of Rupture (Inch-lb.)	Count-Work Product.													
1776	Farm Westerns.	1932-33	18-5-33	20	10	62	196	9,630	5.41	17.08	10.8	73.5	1,435	20.1	110.0	2,233	4	2.2	17.1	88	88	88	70					
1776	Farm Westerns.	1932-33	19-5-33	24		82	174	9,400	0.32	10.73	23.7	51.5	1,292	23.9	65.4	2,280	4	2.8	18.9	87	87	87	68					
2374	Farm Westerns.	1933-34	10-7-34	20	10	26	196	9,600	0.07	17.08	10.9	60.1	1,381	10.7	117.8	2,321	4	1.5	17.0	87	87	87	76					
2374	Farm Westerns.	1933-34	11-7-34	24		50	170	9,150	5.45	10.73	23.2	58.8	1,364	23.5	96.0	2,256	5	1.5	16.0	87	87	87	78					
2374	Farm Westerns.	1933-34	10-7-34	30		56	151	9,600	0.71	23.11	30.0	40.4	1,212	20.5	78.1	2,313	6	2.0	22.2	86	86	86	80					
2748	Farm Westerns.	1934-35	19-6-35	20	10	21	197	9,650	5.05	17.08	10.7	87.0	1,712	10.8	111.8	2,808	3	1.5	17.3	86	86	86	80					
2748	Farm Westerns.	1934-35	19-6-35	24		45	180	9,600	5.32	10.73	23.6	68.1	1,607	23.7	114.4	2,711	4	1.5	16.1	86	86	86	79					
2748	Farm Westerns.	1934-35	20-6-35	30		36	150	9,500	0.71	23.11	20.3	52.4	1,535	20.7	92.4	2,744	5	1.2	22.4	85	85	85	77					
3150	Farm Westerns.	1935-36	23-1-36	20	10	42	195	9,600	5.05	17.08	20.2	65.7	1,327	10.6	120.1	2,477	4	0.8	17.4	88	88	88	70					
3150	Farm Westerns.	1935-36	22-4-36	24		73	170	9,600	5.54	10.73	21.9	44.8	1,110	21.5	104.0	2,548	4	0.8	19.4	88	88	88	72					
3150	Farm Westerns.	1935-36	21-4-36	30		66	140	8,750	0.76	23.20	30.5	30.8	1,214	30.0	78.1	2,352	5	1.0	22.1	89	89	89	70					
3507	Farm Westerns.	1936-37	25-2-37	20	10	10	100	9,350	5.03	17.08	10.7	81.0	1,673	10.7	121.0	2,455	4	1.8	17.2	83	83	83	68					
3507	Farm Westerns.	1936-37	25-2-37	24		45	170	9,200	5.36	10.73	21.3	61.0	1,497	21.1	101.8	2,484	5	1.8	19.0	84	84	84	68					
3507	Farm Westerns.	1936-37	26-2-37	30		17	148	9,350	0.67	23.26	30.1	48.1	1,148	20.7	82.2	2,411	6	1.5	22.1	83	83	83	68					
3966	Farm Westerns.	1937-38	11-3-38	20	10	10	104	9,450	5.81	17.08	20.3	72.1	1,470	20.0	118.1	2,368	4	1.2	17.3	85	85	85	68					
3966	Farm Westerns.	1937-38	11-3-38	24		14	181	9,550	5.20	10.73	23.3	59.2	1,370	23.1	102.4	2,360	4	1.5	18.9	86	86	86	69					
3966	Farm Westerns.	1937-38	12-3-38	30		40	155	9,600	0.83	23.11	30.1	42.1	1,280	30.7	80.0	2,474	5	1.2	22.1	85	85	85	68					

* Diameter of ring frame front roller: $\frac{3}{8}$ ". Diameter of rings: $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BAILHONGAL COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1042	Bailhongal	1930-31	12
1315	"	1931-32	12
1775	"	1932-33	11
2371	"	1933-34	11
2743	Bailhongal Compta	1934-35	11
3147	Bailhongal	1935-36	11
3550	"	1936-37	11
4010	Bailhongal Compta	1937-38	12½

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1, possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

BAILHONGAL.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
..	Creamy-white.	Dull white ..	Dullish creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white.	White to creamy-white.	
..	Fairly leafy ..	Leafy ; almost free of stains.	Leafy-very fine leaf.	Very leafy ..	Leafy (very fine leaf).	Leafy ..	Leafy ..	Leafy ..	
..	Good ..	Soft ..	Good ..	Good ..	Good ..	Good ..	Fair ..	Fair ..	
and nep-	Well-ginned ..	Well-ginned ..	Well-ginned ..	Slightly knotted	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	
..	1% ginned and partly ginned.	..	..	..	Contains too many un-ginned seeds.	..	..	Contains some ginned and cut seeds.	
iver..	Clean ..	A little pin trash present.	A trifle leafy ..	Fairly leafy ..	Clean ..	Clean ..	Good ..	Clean ..	
Feb ..	Very good ..	Even and nep-free.	Even and nep-free.	Good ..	Even and nep-free.	Good ..	Good ..	Good, nep-free.	
of ten flat	11.2 grams ..	15.6 grams ; dirty.	15.2 grams ..	19.5 grams ..	15.6 grams ..	12.8 grams ..	13.2 grams ..	12.8 grams.	
ss ..	Fully pressed ..	Fine strong staple.	Contains much very fibre.	..	..	..	..	..

(b) *Yarn* :—

BAILHONGAL.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
ness ..	Clean ..	A trifle leafy ..	Clean ..	Almost clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean ..	
ess ..	Fairly even ..	Even ..	Fairly even ..	Even in the two lower counts.	Fairly even ..	Even ..	Even ..	Even ..	
ness ..	A little neppy.	Fairly free of nep.	Free of nep ..	Free of nep ..	Practically free of nep.	Almost nep-free	Fairly free of nep.	Fairly free of nep.	
ness ..	..	..	..	Slubby ..	..	..	..	..
rika ..	..	..	..	..	..	..	..	..

Spinning Test Details and Results.—See Table 2 on page 84.

II.—GRADER'S REPORT* FOR BAILHONGAL COTTON.

		BAILHONGAL.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	Broach ..	Broach/Kumptn ..	Hedge Contract No. 5 Southern.	Broach ..	July/Aug. Broach.	Broach April/May.	Broach April/May	Broach April/May.
Class ..	.. ..	Fully Good	Fully Good	Good M. G.	Fully Good	Fully good to fine	Fully good to fine.	Fully good to fine	Barely fine.
Colour ..	.. ..	Reddish	Reddish Line	Brownish ..	Brownish ..	Brownish white	Brownish white	Brownish white	Brownish white.
Staple Length	.. ..	7/8"	31/32"	7/8"	13/16"	3/4"	13/16"	7/8"	7/8"
Staple Strength	.. ..	Fair	Good	Moderate ..	Fair	Fair	Good	Good	Good.
Regularity ..	.. ..	Fair	Fair	Regular ..	Fair	Somewhat irregular	Fair	Good	Good.
Value above or below contract rate	.. ..	Rs. 35 on ..	Rs. 30 on ..	Rs. 25 on ..	Rs. 15 on ..	Rs. 30 on ..	Rs. 30 on ..	Rs. 30 on ..	Rs. 35 on.
Basis ..	.. ..	Rs. 160	Rs. 170	F. G. Broach April/ May 1933.	Broach July/Aug. Rs. 203.	Rs. 232	Rs. 203	Rs. 247	Rs. 164.
Date of Valuation	.. ..	11-5-31	5-5-32	15-5-33	9-7-34	3-7-35	20-4-36	23-3-37	25-3-38.
Remarks ..	.. ..			Inferior in staple to last year's crop.					

* Reports for 1932-33, 1933-34 and 1935-36 onwards were made by the mill supplying the sample.

Table 2.—SPINNING TEST RESULTS FOR BAILHONGAL COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS *						YARN TEST RESULTS.						TEMPERATURE (°F).	RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, ft. p. m.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	BALISTICO.			Liveness Class.	Keps per yard.	Turns per Inch. Actual.	Spinning Room.			Spinning Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.							
10412	Bailhongal.	1930-31	4-5-31	20	10	12.2	8.2	0.3	10.7	0	188	9,450	0.25	17.03	10.8	74.0	1483	10.8	114.4	2205	17.3	89	70	70
10412	Bailhongal.	1930-31	4-5-31	24		..	..	..	..	4	177	9,500	5.05	19.73	23.4	61.0	1427	23.3	95.6	2227	10.0	91	65	70
10412	Bailhongal.	1930-31	8-5-31	30B		..	..	..	..	53	157	9,000	7.53	23.11	20.2	14.0	1235	20.7	76.8	2231	22.1	91	67	68
13115	Bailhongal.	1931-32	29-4-32	20	10	13.3	9.2	0.7	21.8	78	194	9,650	5.43	17.08	20.2	67.4	1301	20.0	104.4	2151	17.5	90	06	06
13115	Bailhongal.	1931-32	29-4-32	24		..	..	..	..	109	173	9,450	0.51	10.73	24.6	45.8	1127	24.7	87.8	2100	19.0	90	02	08
13115	Bailhongal.	1931-32	30-4-32	30B		..	..	..	..	76	151	9,600	0.76	23.11	23.9	44.3	1230	20.0	80.0	2320	22.2	89	60	70
17716	Bailhongal.	1932-33	18-5-33	20	10	15.6	10.2	0.6	24.7	119	106	9,650	5.21	17.08	20.6	61.3	1323	20.6	107.6	2217	17.2	88	63	70
17716	Bailhongal.	1932-33	19-5-33	24		..	..	..	..	91	171	9,400	6.02	19.73	23.8	53.2	1219	23.4	92.6	2167	18.9	87	06	68
23711	Bailhongal.	1933-34	9-7-34	20	10	13.8	11.2	0.4	23.8	36	200	9,800	6.10	17.08	20.0	73.2	1461	20.0	110.8	2216	17.5	86	76	73
23711	Bailhongal.	1933-34	10-7-34	24		..	..	..	..	30	179	9,000	5.47	19.73	23.1	64.1	1461	23.7	93.6	2337	19.3	87	74	78
23711	Bailhongal.	1933-34	10-7-34	30B		..	..	..	..	192	184	9,000	6.76	23.11	30.6	43.2	1322	20.8	73.8	2348	22.2	86	81	80
27443	Bailhongal.	1934-35	10-6-35	20	10	12.8	8.7	0.3	20.7	10	194	9,500	5.81	17.08	20.0	93.8	1876	20.1	135.8	2730	17.4	90	69	73
27443	Bailhongal.	1934-35	1-6-35	24		..	..	..	..	27	165	8,750	5.43	10.73	23.6	76.7	1810	23.3	117.6	2740	19.0	90	69	77
27443	Bailhongal.	1934-35	12-6-35	30B		..	..	..	..	13	152	9,650	0.76	23.11	28.6	61.8	1707	25.5	98.4	2304	22.6	90	68	82
3147	Bailhongal.	1935-36	17-4-36	20	10	10.9	7.1	0.4	17.6	47	192	9,450	5.05	17.08	20.2	66.5	1343	19.5	110.4	2328	17.1	89	67	70
3147	Bailhongal.	1935-36	20-4-36	24		..	..	..	..	14	173	9,500	6.41	19.73	23.6	50.8	1199	23.8	90.0	2335	18.7	89	68	72
35560	Bailhongal.	1936-37	6-4-37	20	10	13.2	8.6	0.6	21.2	20	190	9,400	0.13	17.03	20.2	83.7	1091	20.6	123.8	2476	17.1	85	67	69
35560	Bailhongal.	1936-37	6-4-37	24		..	..	..	..	23	171	9,350	5.21	10.73	23.3	71.0	1054	23.1	107.6	2480	18.8	86	65	68
35560	Bailhongal.	1936-37	5-4-37	30A		..	..	..	..	36	159	9,500	0.28	21.86	29.1	40.2	1410	20.9	85.6	2550	20.4	85	67	68
4010	Bailhongal.	1937-38	13-4-38	20	10	12.4	7.6	0.5	19.4	5	214	11,300	5.93	17.08	20.3	78.1	1533	20.3	122.4	2485	17.2	88	69	70
4010	Bailhongal.	1937-38	14-4-38	24		..	..	..	..	18	189	9,600	5.41	10.73	23.8	45.1	1640	23.9	105.2	2514	18.9	89	68	70
4010	Bailhongal.	1937-38	14-4-38	30A		..	..	..	..	30	168	10,000	6.79	21.89	30.4	42.8	1301	30.3	80.8	2448	21.4	88	68	63

* Diameter of ring frame front roller—1½". Diameter of rings—11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

3.—BROACH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals* of the new crop.

Sample No.	Cotton.	Season.
1007	Broach (Salar)	1930-31
1314	" (Salar)	1931-32
1707	" (Sadhli)	1932-33
2372	" (Sadhli)	1933-34
2744	" (Broach)	1934-35
3148	" (Jambusar)	1935-36
3508	" (Palej)	1936-37
3965	" (Palej)	1937-38

The mill supplying the sample explains that Sadhli is a station in the Broach District and Salar is merely the type name given by a seller to Sadhli or similar cotton.

5-36 sample does not represent the early arrivals of Broach but represents the average quality of the Broach cotton.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Up to 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Up to 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report.

Cotton :—

	Broach.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White to creamy-white.	Creamy-white.	White; bright	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White.	White; bright.
.. ..	Very bright, clean.	Clean, almost free of leaf.	Almost clean ..	Fairly clean ..	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.	Fairly clean; an occasional stain.
.. ..	Good silky ..	Fairly good ..	Good-bodied ..	Good ..	Good smooth.	Smooth-bodied	Good soft ..	Fair.
1 Neppiness	Well-ginned	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned.
..
.. ..	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
.. ..	First class ..	Even and nep-free.	Even and nep-free.	Good	Good	Even and nep-free.	Free of neps ..	Almost free of neps.
0 flatstrips.	12.6 grams	16.2 grams	16.2 grams ..	17.5 grams ..	21.6 grams ..	17.5 grams ..	15.8 grams ..	15.4 grams.
.. ..	Fully pressed.	Medium fine staple, regular and fairly strong.	..	..	..	..	..	..

Yarn :—

	Broach.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean	Clean	Clean	Clean	Clean	A little leafy ..	A little leafy ..	Clean.
.. ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Somewhat uneven.	Fairly even ..	Fairly even ..	Even.
.. ..	Free of nep ..	Almost free of nep.	Free of nep ..	Free of nep ..	A trifle neppy.	Free of nep ..	Almost free of nep.	Free of neps.
.. ..	..	..	Shows an occasional slub.	..	Slightly slubby.	..	..	A little slubby.
..

Spinning Test Details and Results.—See Table 3 on page 87.

II.—GRADER'S REPORT* FOR BROACH COTTON.

		BROACH.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under	..	Broach.	Broach.	Hedge contract Broach F. G. No. 2. April/May 1933.	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.	F. G. M. G. Broach No. II.		
Class	..	Superfine.	Superfine.	Superfine.	Strict fine.	Fully good to fine.	Superfine.	Fine to superfine.	Extra superfine.		
Colour	..	White.	White with touch of cream.	White.	Slightly creamy.	Dull white; slightly stained.	White.	White.	White.		
Staple Length	..	13/16"-7/8".	20/32".	3/4".	3/4".	11/16".	11/16".	5/8".	21/32".		
Staple Strength	..	Fair.	Fair.	Moderate.	Fair.	Poor.	Fair.	Poor.	Moderate.		
Regularity	..	Fair.	Fair.	Somewhat irregular.	Fair.	Fair.	Fair.	Fair.	Regular.		
Value above or below contract rate	..	Rs. 10 on.	Rs. 20 on.	Rs. 7 on.	Rs. 10 on Broach.	Rs. 5 on.	Rs. 5 on.	Rs. 1 on.	Rs. 5 on.		
Basis	..	Rs. 203.	Rs. 170.	F. G. Broach April/ May.	Rs. 203 July/August Broach.	Rs. 232.	Rs. 203.	Rs. 221.	Rs. 180.		
Date of Valuation	..	14-3-31.	5-5-32.	17-3-33.	9-7-34.	3-7-35.	20-4-36.	10-2-37.	23-2-38.		
Remarks	..	..	..	This sample is defective in staple and strength as compared with last year's crop.	..	..	..	..	..

* Reports since 1932-33, except for 1934-35, were made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TEMPER- ATURE (°F.).		RELATIVE HUMIDITY (%).
Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALLISTIC.			Evenness Class.	Neps per yard.	Turns per Inch. Actual.	Spinning Room.	Spinning Room.	Testing Room.				
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†						Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work Rupture (Inch-lb.)	Count-Work Product.										
1007	1930-31	17-3-31	16A	10	7.0	9.7	0.6	15.3	7	184	8000	5.75	15.97	10.6	59.0	979	16.6	121.2	2012	3	1.2	15.5	81	67	69				
1007	1930-31	17-3-31	20		..	..	..	..	50	180	10000	6.25	20.23	20.1	53.1	1103	20.5	101.4	2140	4	1.7	10.6	82	66	69
1314	1931-32	20-4-32	12	10	5.3	8.9	0.5	14.2	7	208	8000	4.30	13.02	12.0	63.3	1144	12.2	207.2	2358	4	1.5	13.1	88	63	72				
1314	1931-32	28-4-32	16A		..	..	..	..	88	181	8100	5.00	15.97	10.1	57.9	992	10.2	130.6	2116	5	1.8	15.3	90	63	66
1314	1931-32	20-4-32	16B		..	..	..	..	62	190	9000	5.00	10.97	10.0	69.8	1117	15.3	151.4	2362	4	1.5	16.4	91	67	68
1707	1932-33	22-3-33	12	10	8.1	9.0	0.5	17.4	36	201	7000	5.25	13.92	12.4	80.7	900	12.1	103.2	2306	4	0.5	13.4	81	70	70				
1707	1932-33	22-3-33	10A		..	..	..	..	121	175	7700	5.34	15.97	10.3	52.1	819	10.0	116.1	2312	5	0.5	15.5	85	71	71
1707	1932-33	22-3-33	16B		..	..	..	..	133	190	8700	5.53	10.97	10.1	61.0	1061	10.1	148.0	2383	5	0.5	16.4	86	70	70
2372	1933-34	7-7-34	14A	10	0.9	9.7	0.4	16.2	51	200	8200	5.57	11.08	11.1	85.6	1207	14.2	170.6	2332	4	0.5	14.0	87	71	73				
2372	1933-34	9-7-34	10A		..	..	..	..	49	188	8200	5.37	15.97	10.2	67.3	1090	10.4	137.1	2253	4	0.8	15.5	85	78	78
2372	1933-34	9-7-34	10B		..	..	..	..	36	198	8850	5.57	10.97	10.2	78.6	1271	10.5	139.8	2707	4	0.8	10.3	86	76	78
2744	1934-35	12-6-35	14A	10	7.2	10.8	0.4	17.5	29	188	7000	5.55	14.98	11.2	76.8	1091	13.0	187.6	2609	4	1.8	11.7	90	68	70				
2744	1934-35	13-6-35	10A		..	..	..	..	55	177	7000	5.43	15.97	10.0	70.0	1129	15.7	101.8	2510	5	2.0	15.1	91	67	82
2744	1934-35	13-6-35	10B		..	..	..	..	12	180	8200	5.51	10.97	15.7	83.0	1303	15.7	105.2	2504	5	1.5	10.4	90	68	82
3148	1935-36	24-4-36	10	10	6.9	9.8	0.1	16.3	9	193	6650	5.30	12.67	10.5	85.7	900	10.2	238.8	2436	4	0.5	12.1	88	66	70				
3148	1935-36	23-4-36	14A		..	..	..	..	87	189	7150	5.43	11.98	11.2	55.1	782	14.1	181.6	2561	4	0.5	11.2	89	67	70
3148	1935-36	24-4-36	14B		..	..	..	..	58	200	8800	5.43	15.97	11.0	73.0	1035	14.3	175.2	2505	4	0.8	15.4	80	69	68
3508	1936-37	2-3-37	12	10	5.9	9.0	0.3	14.0	7	206	7800	4.22	13.92	12.1	106.9	1293	11.8	241.8	2853	3	0.8	13.5	83	67	68				
3508	1936-37	26-2-37	14A		..	..	..	..	15	196	7700	5.55	14.08	13.0	89.2	1210	13.0	197.8	2600	4	0.8	14.7	83	67	68
3508	1936-37	20-2-37	16A		..	..	..	..	18	174	7700	5.71	15.97	16.3	61.2	1016	16.1	136.8	2293	4	1.0	15.2	84	68	67
3508	1936-37	27-2-37	16B		..	..	..	..	42	170	8000	5.01	10.97	10.1	73.0	1279	10.3	153.2	2467	4	1.2	16.3	84	67	67
3965	1937-38	10-3-38	12	10	6.7	9.0	0.4	15.5	22	209	7900	5.37	13.92	11.7	80.0	1017	12.0	262.0	2421	3	0.8	13.5	85	68	66				
3965	1937-38	11-3-38	14A		..	..	..	..	80	191	7650	5.21	14.98	11.6	56.7	823	14.3	150.4	2451	3	0.8	11.6	85	67	68
3965	1937-38	10-3-38	14B		..	..	..	..	44	198	8500	5.37	15.97	11.8	69.8	1037	11.8	153.2	2507	4	1.0	15.5	85	66	69

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $1\frac{1}{2}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

4.—KARUNGANNI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1063	Karunganni	1930-31
2413	Karunganni	1933-34
2746	Karunganni (Cambodia Dt.)	1934-35
3271	Karunganni	1935-36
4022	Karunganni	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KARUNGANNI.				
	1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Colour	Creamy-white ; fairly bright.	White to creamy-white ; bright.	White ; bright.	White to creamy-white ; brightish.	White to creamy white.
Cleanliness .. .	Fairly clean.	Fairly clean.	Fairly clean.	A little leafy.	A little leafy.
Feel .. .	Full-bodied.	Good smooth.	Good silky.	Good smooth.	Good.
Ginning and neppiness ..	A fair amount of knot and nep.	Well-ginned.	Well-ginned.	A little knotted.	..
Seeds .. .	Some cut seed.	..	Few crushed seeds.	..	Contains a few cut seeds.
Card sliver .. .	Almost clean.	Fairly clean.	Clean ; soft.	Almost clean.	Good.
Card web .. .	Somewhat neppy and cloudy.	..	A little neppy.	A trifle neppy.	Good.
Weight of 10 flat strips ..	16.4 grams.	23.0 grams.	26.0 grams.	18.0 grams.	23.2 grams.
Remarks .. .	Fully-pressed.	..	..	..	..

(b) Yarn :—

	KARUNGANNI.				
	1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Cleanliness .. .	Fairly clean.	Almost clean.	Clean.	Little leafy.	A little leafy.
Evenness .. .	Fairly even.	Fairly even.	Even.	Fairly even.	Fairly even.
Neppiness .. .	Somewhat neppy.	A little neppy.	Neppy.	Somewhat neppy.	A little neppy.
Slabbiness .. .	..	A little slabby.	..	Occasionally slabby.	..
Remarks .. .	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 4 on page 90.

II.—GRADER'S REPORT* FOR KARUNGANNI COTTON.

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		1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Contract valued under	Broach.	Broach.	July/August Broach.	Broach July/August.	Broach April/May.
Class	.. ..	Fine.	Fine.	Superfino.	Fine.	Fine.
Colour	.. ..	White.	White.	Bright white.	White	Creamy-white.
Staple Length	.. ..	$\frac{5}{8}$ —1 inch.	15/16 inch.	7/8 inch.	13, 16 inch.	29/32 inch.
Staple Strength	.. ..	Irregular.	Good.	Fair.	Fair.	Fair.
Regularity	.. ..	Very irregular.	Good.	Slightly irregular.	Slightly irregular.	Irregular.
Value above or below contract rate	.. ..	Rs. 50 on.	Rs. 55 on Broach.	Rs. 55 on.	Rs. 30 on.	Rs. 40 on.
Basis	.. ..	Rs. 175.	Rs. 203 July/Aug. Broach.	Rs. 232.	Rs. 220.	Rs. 157.
Date of Valuation	.. ..	30-5-31.	9-7-34.	3-7-35.	1-7-36.	7-4-38.
Remarks	.. ..	Valued on name only.	.. ..	Somewhat soft.	.. ..	.. ..

* Grader's Report for 1933-34 and 1935-36 onwards is compiled by the mill supplying the sample.

Table 4.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS										RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Packages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LBS.			BAILESTIC.			Twines class.	Keps per yard.	Turns per inch, Actual.		ATMOS. HUMIDITY (%).	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Worked Rupture (inch-lbs.)	Count-Work Product.						
1003	Karunganni.	1930-31	23-5-31	20	10	7.2	9.2	0.6	10.2	36	187	9100	6.38	17.09	10.8	60.1	1100	19.0	110.8	2205	1	5.2	17.2	00	08	59
1003	Karunganni.	1930-31	23-5-31	24		..	..	..	..	44	171	9375	0.38	10.73	23.1	60.8	1173	23.7	94.8	2217	5	5.6	19.0	00	08	71
2113	Karunganni.	1932-34	1-8-34	20	10	0.0	11.7	0.4	13.1	42	186	9000	0.19	17.95	20.1	67.2	1351	20.2	110.6	2355	4	2.3	16.7	83	31	86
2113	Karunganni.	1932-34	1-8-34	24		..	..	..	..	77	168	8950	0.41	10.73	21.7	72.1	1212	24.5	100.2	2355	1	2.5	18.6	82	32	93
2716	Karunganni.	1934-35	17-6-35	20	10	7.8	13.0	0.7	20.6	16	194	9500	0.07	17.08	20.0	80.0	1720	19.0	130.5	2782	4	1.9	17.5	88	06	82
2716	Karunganni.	1934-35	17-6-35	24		..	..	..	..	23	176	9500	0.07	10.73	22.9	74.6	1663	22.0	119.4	2716	1	5.5	19.4	90	07	80
3271	Karunganni.	1935-36	13-7-36	20	10	8.8	9.6	0.3	17.7	0	193	9700	5.08	17.08	20.2	71.4	1603	19.7	127.1	2510	4	1.0	17.4	87	70	72
3271	Karunganni.	1935-36	16-7-36	24		..	..	..	..	18	174	9700	5.76	10.73	24.1	57.6	1398	21.1	101.0	2506	4	3.8	19.1	88	73	71
3271	Karunganni.	1935-36	16-7-36	20		..	..	..	..	26	165	9500	0.07	21.80	20.7	12.0	1217	20.0	87.0	2512	5	3.2	21.1	89	73	72
4022	Karunganni.	1937-38	25-4-38	10	10	0.8	12.5	0.4	13.7	12	218	9300	5.65	15.97	16.7	91.1	1430	16.1	107.0	2908	3	2.8	15.3	89	09	08
4022	Karunganni.	1937-38	25-4-38	20A		..	..	..	..	16	192	9250	5.03	17.94	10.7	60.4	1308	10.8	125.0	2175	4	2.2	17.3	91	09	08
4022	Karunganni.	1937-38	26-4-38	20B		..	..	..	..	0	201	10350	0.05	19.20	10.5	78.7	1535	10.8	131.0	2504	1	2.2	18.7	91	08	08

* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of ring— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—NANDYAL COTTON.

These samples have been tested by arrangement with the Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs).
1069	Nandyal	1930-31	11
2751	„ (Northern Cambodia).	1934-35	10

1.—SPINNING TESTS.

- Treatment.*—The 1930-31 sample was passed through the Porcupine, Crighton (twice), Hopper, Scutcher (3 times), Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. The 1934-35 sample was passed through the Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times) in the blow-room and was spun on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement; otherwise its treatment was the same as for the cotton of the other season.

2. *Spinning Master's Report :—*

(a) *Cotton :—*

	NANDYAL.	
	1930-31.	1934-35.
Colour	Creamy-white.	White to creamy-white.
Cleanliness	Leafy (very fine leaf).	Slightly stained; leafy.
Feel	Good; soft.	Good.
Ginning and Neppiness	Well-ginned; a little neppy.	Well-ginned.
Seeds .. .. .	..	..
Card Sliver	Clean.	Clean; soft.
Card Web	Trifle neppy.	Slightly neppy.
Weight of ten flat strips	15.8 grams.	25.8 grams.
Remarks	Staple regular in length and of good strength.	..

(a) *Yarn :—*

	NANDYAL.	
	1930-31.	1934-35.
Cleanliness	Clean.	Clean.
Evenness	Fairly even.	Fairly even.
Neppiness	A little too neppy.	A little neppy (fine neps).
Slubbiness .. .. .	..	A trifle slubby.

3. *Spinning Test Details and Results :—*See Table 5 on page 92.

II.—GRADER'S REPORT* FOR NANDYAL COTTON.

	NANDYAL.															
	1930-31.								1931-35.							
Contract valued under	Broach July/August.	..	..	..	..	..	..	..
Class	Fino.	..	..	..	..	..	..	..
Colour	Creamy.	..	..	..	..	..	..	..
Staple Length	7/8 inch.	..	..	..	..	..	..	..
Staple Strength	Good.	..	..	..	..	..	..	..
Regularity	Fairly regular.	..	..	..	..	..	..	..
Value above or below contract rate	Rs. 80 on.	..	..	..	..	..	..	..
Basis	Broach July/August.	..	..	..	..	..	..	..
Date of Valuation	25-5-35.	..	..	..	..	..	..	..
Remarks

*Report for 1931-35 is supplied by the mill supplying the sample.

Table 5.—SPINNING TEST RESULTS FOR NANDYAL COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING DRAPE PARTICULARS.*				YARN TEST RESULTS.										TEMPER- ATURE (°C.)	RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	TEST.			BALANCING.			Reynolds Class	Steps per ynl.	Turns per Inch. Actual.			Spinning Room.	Testing Room.
															Counts Actual	Strength (lbs)	Count-Strength Product.	Counts Actual	Work of Machine (in.-lbs)	Count-Work Product.							
1009	Nandyal ..	1930-31	4-6-31	21	10	10.5	9.2	0.4	0.1	18	180	9,850	7.11	19.73	21.1	95.7	1,589	2,715	21.5	110.8	2,715	4	5.5	19.0	92	67	69
1009	Nandyal ..	1930-31	4-6-31	30		..	..	..	..	72	256	9,500	7.29	21.80	31.0	12.3	1,311	2,000	31.9	83.4	2,000	5	5.0	21.1	92	71	68
1009	Nandyal ..	1930-31	4-6-31	31		..	..	..	..	40	142	9,000	7.81	23.20	32.9	42.7	1,105	2,704	33.8	80.0	2,704	5½	5.7	22.5	92	68	67
2731	Nandyal ..	1931-35	21-6-35	20	10	8.9	12.0	0.5	21.0	5	180	8,800	5.08	17.08	19.0	70.3	1,399	2,372	20.0	118.6	2,372	1	2.5	19.0	84	80	74
2731	Nandyal ..	1931-35	22-6-35	21 A		..	..	..	..	27	150	8,050	0.13	19.73	23.7	52.1	1,236	2,394	23.8	100.6	2,394	4	2.2	18.9	88	73	71
2731	Nandyal ..	1931-35	22-6-35	21 B		..	..	..	..	50	186	10,500	0.25	20.71	23.8	58.6	1,392	2,423	23.8	101.8	2,423	5	2.5	19.5	88	73	72

*Diameter of ring frame front roller—1½". Diameter of ring—1½".
†Total sample weighing 10 lbs.; for bulk sample spun under mill conditions, it would be less than shown here.

6.—NORTHERN CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1064	Northern Cambodia (Kurnool)	1930-31
2747	Northern Cambodia (Kurnool)	1934-35
3272	Northern Cambodia	1935-36
3685	Northern Cambodia	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1930-31 :—Card, Drawing (2 heads), Slubber Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	Creamy-white to creamy.
Cleanliness	Shows an occasional stain; fairly clean.	Occasionally stained.	Fairly clean.	Leafy.
Feel	Full bodied.	Somewhat softish.	Smooth and softish.	Soft.
Ginning and neppiness ..	Somewhat knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	..
Seeds	1% ginned and unginned seeds.	..	..	A few ginned.
Card Sliver	Clean.	Clean.	Clean and soft.	A little leafy.
Card Web	Fairly good.	Good.	A little neppy.	Very neppy.
Weight of 10 flat strips ..	15.7 grams.	20.4 grams.	21.6 grams.	31.8 grams.
Remarks .. ..	..	..	..	..

(b) Yarn :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Cleanliness	Fairly clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness	Fairly even.	Fairly even.	Fairly even.	A little uneven.
Neppiness	Somewhat neppy.	Fairly neppy.	Neppy.	Very neppy.
Slubbiness .. ..	..	Somewhat slubby.	A little slubby.	..

3. Spinning Test Details and Results :—See Table 6 on page 95.

II.—GRADER'S REPORT* FOR NORTHERN CAMBODIA.

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NORTHERN CAMBODIA.						
		1930-31.	1934-35.	1935-36.	1936-37.	
Contract valued under	Broach.	July/August Broach.	Broach July/August.	July/August Broach.	
Class .. ..	.. ..	Fine.	Fine.	F. G. to fine.	Fully good.
Colour .. ..	.. ..	Slight-cream.	Brownish white; somewhat stained.	Creamy-white.	Brownish white.
Staple Length .. ..	.. ..	7/8 inch.	Full 7/8 inch.	31/32 inch.	7/8 inch.
Staple Strength .. ..	.. ..	Fair.	Very good.	Fair.	Weak.
Regularity .. ..	.. ..	Poor.	Regular.	Fairly regular.	Irregular.
Value above or below contract rate	.. ..	Rs. 35 on.	Rs. 65 on.	Rs. 35 on.	Rs. 10 on.
Basis .. ..	.. ..	Rs. 175.	Rs. 232.	Rs. 220.	Rs. 225.
Date of Valuation .. ..	.. ..	30-5-31.	3-7-35.	1-7-36.	28-6-37.
Remarks .. ..	.. ..	..	..	..	..

*Report for 1935-36 and 1936-37 is made up by the mill supplying the sample.

Table 6.—SPINNING TEST RESULTS FOR NORTHERN CAMBODIA.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.							TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)				
						Blow Loom Loss.	Card Loom Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strain†	Counts Actual.	Work of Spindle (lb.)	Count-Work Product.	Yarns per yrd.	Turns per inch.		Spinning Loom.	Spinning Loom.		
1064	Northern Cambodia	1930-31	28-5-31	20	10	8.3	8.7	0.4	16.6	25	167	9,100	6.25	17.03	20.1	65.9	1,225	20.1	112.1	2,203	1	6.2	17.1	90	98	70	
1064	Northern Cambodia	1930-31	28-5-31	21		..	..	..	..	20	171	9,375	6.25	19.73	21.2	57.0	1,317	21.2	98.0	2,372	5	1.0	18.0	90	98	70
2747	Northern Cambodia	1931-35	18-6-35	20	10	7.3	10.6	0.4	17.5	10	105	9,550	6.07	17.03	19.0	47.2	1,050	19.5	139.2	2,750	1	3.2	17.3	97	75	73	
2747	Northern Cambodia	1931-35	18-6-35	21		..	..	..	..	18	181	9,500	5.55	19.73	23.7	65.6	1,555	23.6	115.8	2,733	4	1.2	10.1	89	70	76
2747	Northern Cambodia	1931-35	18-6-35	30		..	..	..	..	17	169	9,600	6.04	21.50	20.5	19.0	1,126	20.5	101.6	2,555	5	3.2	21.2	89	71	70
3272	Northern Cambodia	1935-36	13-7-36	20	10	7.8	11.5	0.3	19.7	10	103	9,700	6.10	17.05	20.3	52.3	1,071	20.2	121.8	2,517	1	4.0	17.1	86	73	72	
3272	Northern Cambodia	1935-36	17-7-36	21		..	..	..	..	9	174	9,700	5.76	19.73	27.6	61.7	1,551	23.8	107.1	2,461	1	5.5	19.0	89	73	72
3272	Northern Cambodia	1935-36	17-7-36	30		..	..	..	..	13	176	9,700	7.11	21.50	30.5	17.2	1,130	30.9	82.6	2,552	5	5.0	20.0	88	77	76
3685	Northern Cambodia	1936-37	5-7-37	20	10	12.6	18.1	0.6	31.5	10	194	9,100	6.25	17.03	10.6	81.0	1,027	10.8	130.0	2,571	1	10.5	17.3	87	75	80	
3685	Northern Cambodia	1936-37	6-7-37	21		..	..	..	..	32	177	9,700	5.13	19.73	21.2	60.5	1,104	21.5	102.0	2,199	5	10.8	10.1	86	70	70
3685	Northern Cambodia	1936-37	6-7-37	30		..	..	..	..	17	111	8,500	6.54	21.50	29.8	19.5	1,126	28.7	95.2	2,531	0	12.2	21.0	86	78	85

* Diameter of ring frame front roller—7". Diameter of rings—14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—BENGALS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1602	Bengals.	Kosi ..	1932-33	3030	Bengals.	Hansi ..	1935-36
2106	"	Kosi ..	1933-34	3438	"	Hansi ..	1936-37
2667	"	Hansi ..	1934-35	3898	"	Hansi ..	1937-38

I.—SPINNING TESTS.

Treatment :—

- (a) *Blow-room*.—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times); 1935-36 onwards; Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. From 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a hand drive arrangement.

Spinning Master's Report :—

(a) Cotton :

BENGALS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy white	Creamy-white creamy	to Creamy-white..	White to creamy-white.	White to creamy-white.	White to creamy-white.
Impurities	Leafy; stained	Badly stained leafy.	and Badly stained; leafy..	Leafy; a little stained.	Leafy; slightly dusty; a little stained.	A trifle leafy and dirty; a little stained
Texture	Roughish	Fairly good	Softish..	Rough	Rough..	Rough
Grain and neppling	Seemingly knotted	..	Fairly well-ginned	Well-ginned	Well-ginned	Good.
Unspinning	2.5% unginned	Contains a few seeds..	..	..	..	A few.
Sliver	Almost clean	Clean	Fairly clean	Almost clean	A little leafy	Almost clean
Web	Good	Good	Fairly good after easing the tension.	Good	Good, almost free from neps.	Good; absolutely free of neps
Weight of 10 flat bales	22.5 grams	19.9 grams	20.3 grams	21.0 grams	18.4 grams	18.3 grams.
Remarks	Well-watered; breakage excessive in G.A.	..	A poor sample	..	..	..

(b) Yarn :

BENGALS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Evenness	Clean	Little leafy	Fairly clean	Clean	Clean and free of leaf	Clean.
Unspinning	Fairly even	Fairly even in the lower count only.	Fairly uneven..	Uneven	..	Fairly even.
Nep-free	Almost nep-free	Free of nep	Free of nep	Nep-free	..	Free of nep.
Slubbiness	..	..	slubby	Somewhat slubby	Rather slubby.	A little slubby.

Spinning Test Details and Results :—See Table 7 on page 98.

II.—GRADER'S REPORT* FOR BENGALS COTTON.

		BENGALS.				
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Bengals.	Bengals.	Bengals.	Bengals.	Bengal.
Class ..	.. ..	Fully good.	Fully good.	Fully good.	Fully good M. G.	Fully good M. G.
Colour ..	.. ..	White.	Dull.	White.	Fairly white.	White.
Staple Length	.. ..	11/16 inch.	3/8 inch.	3/8 inch.	1/2 inch.	1/2 inch.
Staple Strength	.. ..	Fair.	* Rather poor.	Fair.	Good.	Good.
Regularity ..	.. ..	Fair.	Good.	Fair.	Good.	Good.
Value above or below contract rate	.. ..	Rs. 10 on.	Rs. 7 off.	Rs. 2 on.	Rs. 10 on.	Rs. 6 on.
Basis ..	.. ..	Rs. 168.	Rs. 145.	Rs. 151.	Rs. 148.	Rs. 131.
Date of Valuation	.. ..	..	22-1-34.	8-2-35.	4-1-36.	20-12-37.
Remarks ..	.. ..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 7.—SPINNING TEST RESULTS FOR BENGALS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				MILL FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength lbs.	Count-Strength Product.	HALLSTEDT.			Twines Class.	Keps per yard.	Turns per inch.				
																		Counts Actual.	Strength lbs.	Count-Strength Product.				Counts Actual.	Work of (inches-lb.)			Count-Work Product.
1002	Bengals	1932-33	5-1-33	6A	10	13.8	15.2	0.6	27.3	123	175	4,700	1.78	9.87	6.4	17.0	301	0.3	252.4	1,500	4	1.0	9.4	70	70	74	
1002	"	1932-33	5-1-33	6C		"	"	"	"	205	163	5,000	4.78	11.03	7.0	102.0	611	0.3	259.6	1,537	1	1.2	10.6	79	69	72	
2108	Bengals	1933-34	20-1-34	6A	10	12.5	11.3	0.2	25.2	0	180	4,800	4.80	9.87	5.9	91.8	559	5.0	316.0	2,011	1	0.4	9.5	62	62	74	
2106	"	1933-34	20-1-34	6C		"	"	"	"	0	180	5,800	4.80	11.03	5.9	117.1	670	6.0	365.2	2,191	5	1.0	10.7	90	68	68	
2106	"	1933-34	20-1-34	8B		"	"	"	"	87	185	6,400	6.25	12.63	8.3	73.2	603	8.1	202.4	1,701	6	0.9	12.2	80	69	74	
2607	Bengals	1934-35	20-2-35	6B	10	14.1	14.8	0.6	27.3	101	181	5,300	5.00	10.41	6.2	12.7	261	6.3	205.0	1,591	1	1.0	10.2	79	68	70	
2607	"	1934-35	20-2-35	6C		"	"	"	"	136	101	5,000	5.00	11.03	6.1	56.2	360	6.2	216.1	1,523	1	1.2	10.8	90	67	68	
2607	"	1934-35	20-2-35	8B		"	"	"	"	294	152	5,350	6.00	12.63	8.2	55.1	283	8.2	176.0	1,411	5	1.2	12.1	80	60	72	
3030	Bengals	1935-36	18-1-36	6B	10	13.5	15.0	0.3	29.7	156	176	5,300	5.10	10.41	6.1	33.1	211	6.2	204.0	1,290	5	0.2	10.1	77	66	66	
3030	"	1935-36	19-1-36	6C		"	"	"	"	122	192	6,000	5.10	11.03	6.2	60.9	377	6.1	202.2	1,612	5	0.2	10.6	70	67	61	
2030	"	1935-36	18-1-36	8B		"	"	"	"	210	152	5,300	5.00	12.63	8.1	31.8	232	8.1	160.4	1,717	5	0.5	12.1	79	66	70	
3433	Bengals	1936-37	21-12-36	6B	0	12.8	12.3	0.1	26.4	55	192	5,200	5.10	10.11	6.3	57.5	365	6.2	211.0	1,161	5	0	9.9	82	61	69	
3433	"	1936-37	21-12-36	6C		"	"	"	"	14	189	5,500	5.10	11.03	6.1	79.3	503	6.1	250.6	1,661	5	0.5	10.6	82	61	72	
3433	"	1936-37	21-12-36	8B		"	"	"	"	11	140	5,000	5.00	12.63	8.2	50.0	410	4.1	102.2	1,611	5	0.5	12.6	79	62	70	
3808	Bengals	1937-38	10-1-38	6B	10	13.1	12.8	0.1	22.7	69	190	5,600	5.20	10.41	6.1	61.6	301	6.1	213.9	1,502	3	0.4	10.0	82	67	68	
3808	"	1937-38	10-1-38	6C		"	"	"	"	0	189	5,800	5.20	11.03	6.2	91.8	632	6.2	332.0	2,053	1	0.8	10.6	82	67	68	
3308	"	1937-38	11-1-38	8B		"	"	"	"	87	108	5,600	5.20	12.63	8.1	55.4	410	8.1	202.0	1,607	1	1.0	12.3	81	68	68	

* Diameter of ring frame front roller, 1½". Diameter of ring, 11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

8.—KHANDESH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
967	Khandesh	Ranala	1930-31	2105	Khandesh	Saudha	1933-34
1249	"	"	1931-32	2663	"	"	1934-35
968	"	Nimbora	1930-31	3031	"	"	1935-36
1250	"	"	1931-32	3439	"	"	1936-37
1603	"	Saudha	1932-33	3957	"	"	1937-38

Treatment :—

I.—SPINNING TESTS.

(a) *Blow-room*.—Upto 1934-35 inclusive: Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 inclusive: Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

KHANDESH.										
Ranala.		Nimbora.		Saudha.						
1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
White to creamy-white; slightly bright.	Creamy-white.	White to creamy-white.	White to creamy-white.	Brightish creamy-white.	White to creamy-white; bright.	Dullish creamy-white.	White to creamy-white.	White to creamy-white.	White to creamy-white.	White to creamy-white.
Occasional stain.	Occasional stain; leafy.	Leafy	Somewhat stained; leafy.	Somewhat leafy.	Somewhat leafy.	Very slightly stained; leafy.	Leafy; a trifle stained.	Leafy	Leafy; a little stained.	Leafy; a little stained.
..	Slightly rough in feel.	Good	Softish	Good	Smooth and bodied.	Good	Roughish	Roughish	Rough.	Rough.
Fairly well-ginned.	Well-ginned.	Fairly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Not well-ginned.	Well-ginned.	Well-ginned.
2.1% ginned and un-ginned.	1.8% un-ginned.	1.4% ginned.	1.4% ginned and un-ginned.	2.75% ginned and un-ginned.	A few seeds.	1.3% seeds.	..	Quite a few seeds.	..	..
Clean	Clean	..	Clean	Clean	Clean	Clean	Clean	A little leafy.	A little leafy.	A little leafy.
Good	Free of nep	..	Practically nep-free.	Good	Even and nep-free.	Good	Good	Good	Good; fairly free of neps.	Good; fairly free of neps.
15.3 grams.	18.3 grams	..	18.5 grams	16.8 grams	15.4 grams	19.5 grams	16.6 grams	20.1 grams	21.0 grams.	21.0 grams.
Fully pressed	..	Fully pressed.	..	..	..	..	..	..	..	..

(b) *Yarn* :—

KHANDESH.										
Ranala.		Nimbora.		Saudha.						
1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Clean	Almost clean.	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean.	Clean.
Even in the lower counts only.	Even to fairly even.	Even in lower count.	Fairly even.	Fairly even.	Even	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Free of nep.	Practically free of nep.	Nep-free...	Almost free of nep.	Almost free of nep.	Free of nep	Free of nep.	Nep-free.	Free of nep.	Free of nep.	Free of nep.
..	..	..	Occasional slub.	..	..	A little slubby.	A little slubby.	Occasional slub.	..	..

Spinning Test Details and Results :—See Table 8 on page 101.

II.—GRADER'S REPORT* FOR KHANDESH COTTON.

KHANDESH.

	Nimbora.						Saudha.			
	Ranala.									
	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class	Fully good.	Fine.	Fully good.	Fine.	Fully good to fine.	Fine.	Fine.	Fully good M.G.	Fully good M.G.	Fully good M.G.
Colour	White.	White.	White.	White.	White.	White.	White.	Fairly white with creamish tint.	Fairly white.	Fairly white.
Staple Length	13/16 inch.	13/16 inch.	13/16 inch.	27/32 inch.	3/4 inch.	3/4 inch.	1/2 inch.	11/16 inch.	11/16 inch.	Sty: 11/16 inch.
Staple Strength	Fair.	Fair.	Fair.	Fair.	Fair.	Very good.	Good.	Good.	Good.	Good.
Regularity	Fair.	Good.	Fair.	Good.	Fair.	Good.	Good.	Fairly good.	Fair.	Fairly good.
Value above or below contract rate	Rs. 5 on.	Rs. 17 on.	Rs. 5 on.	Rs. 18 on.	Rs. 8 on.	Rs. 1 on.	Rs. 2 on.	Rs. 5 on.	Rs. 2 on.	Rs. 2 on.
Basis	Rs. 165.	Rs. 212.	Rs. 165.	Rs. 212.	Rs. 188.	Rs. 179.	Rs. 226.	Rs. 201.	Rs. 202.	Rs. 202.
Date of Valuation	5-2-31.	10-2-32.	5-2-31.	10-2-32.	9-1-33.	22-1-34.	8-2-35.	4-1-36.	17-12-36.	24-2-38.
Remarks	..	..	..	..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 8.—SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE MOISTURE (%).	RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Room.	Total Loss.	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	I.R.A.			ANALYTIC.			Evenness Class.			Mega per yard.	Turns per inch.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.					
967	Khandesh (Banals).	1930-31	2-2-31	10A	10	12.7	9.3	0.6	21.2	30	196	..	5.03	12.63	10.4	86.0	904	10.1	235.2	2370	4	1.2	12.2	89	73
967	Khandesh (Banals).	1930-31	2-2-31	12A	10	..	..	..	..	24	183	..	5.74	13.02	11.9	78.6	935	12.0	100.2	2354	5	1.5	13.1	83	67
967	Khandesh (Banals).	1930-31	2-2-31	14A	10	..	..	..	..	59	175	..	6.75	15.03	12.9	60.8	789	13.8	140.8	2026	6	1.5	14.8	82	68
1249	Khandesh (Banals).	1931-32	2-2-32	12A	10	11.3	10.3	0.5	21.3	29	188	7200	0.28	17.02	11.9	87.1	1070	12.1	195.6	2240	3	1.8	13.0	82	67
1249	Khandesh (Banals).	1931-32	2-2-32	14A	10	..	..	..	..	18	175	7200	0.50	15.03	13.6	71.0	974	13.9	117.2	2046	4	2.0	11.7	83	65
1249	Khandesh (Banals).	1931-32	2-2-32	14B	10	..	..	..	..	55	145	7200	0.51	15.97	13.0	78.6	1002	11.0	150.8	2298	4	1.8	15.4	82	66
968	Khandesh	1930-31	2-2-31	10A	10	12.3	10.2	0.7	21.8	10	190	..	5.61	12.63	10.1	91.2	943	10.3	239.0	2167	1	1.2	12.1	80	73
968	Khandesh	1930-31	2-2-31	12A	10	..	..	..	..	48	185	..	5.74	13.02	11.6	89.1	1054	11.0	202.4	2100	5	1.7	13.1	83	67
968	Khandesh	1930-31	2-2-31	14A	10	..	..	..	..	93	175	..	6.75	15.03	14.1	67.1	895	11.2	150.8	1942	6	2.0	14.5	82	65
1250	Khandesh	1931-32	2-2-32	12A	10	10.2	10.3	0.6	10.8	67	187	7250	0.38	11.02	12.2	80.2	978	12.0	191.0	2320	4	0.8	13.5	82	69
1250	Khandesh	1931-32	2-2-32	14A	10	..	..	..	..	60	175	7100	0.34	15.03	13.9	60.0	911	13.8	171.4	2407	1	1.2	14.6	81	66
1250	Khandesh	1931-32	2-2-32	14B	10	..	..	..	..	39	183	7800	0.58	15.07	11.0	81.0	1114	13.8	168.0	2318	4	1.2	15.4	81	66
1603	Khandesh	1912-33	5-1-33	12A	10	12.4	10.5	0.4	22.0	188	189	7300	5.14	13.92	12.2	71.1	807	12.1	184.8	2286	4	1.2	13.6	80	74
1603	Khandesh	1912-33	5-1-33	14A	10	..	..	..	..	131	163	6050	0.10	11.94	12.0	61.0	870	11.9	177.2	2327	4	1.2	14.3	81	66
1603	Khandesh	1912-34	9-1-33	14B	10	..	..	..	..	51	190	7050	0.21	15.97	13.4	70.2	900	13.8	173.2	2300	1	1.2	15.6	80	69
2103	Khandesh	1913-31	27-1-34	12A	10	10.0	10.8	0.3	20.0	58	194	7300	5.25	13.02	12.0	78.5	942	12.0	194.8	2358	3	0.5	13.1	81	68
2103	Khandesh	1913-31	27-1-34	14A	10	..	..	..	..	87	108	7000	6.13	14.93	13.9	63.8	887	14.2	103.2	2317	1	0.5	11.5	81	67
2103	Khandesh	1913-31	27-1-34	14B	10	..	..	..	..	53	170	7750	6.13	15.07	14.0	75.0	1003	13.0	170.8	2374	4	0.6	15.1	81	67
2663	Khandesh	1914-35	15-2-35	10A	10	10.3	10.0	0.4	20.4	27	189	6900	5.22	12.63	10.2	70.3	809	10.2	225.2	2297	4	1.0	12.6	80	69
2663	Khandesh	1914-35	10-2-35	12A	10	..	..	..	..	36	166	6900	5.21	13.92	11.9	61.7	744	12.2	185.2	2250	5	0.8	13.2	79	67
2663	Khandesh	1914-35	10-2-35	12B	10	..	..	..	..	44	183	7300	5.21	14.65	12.1	74.3	800	12.2	187.6	2280	5	1.0	14.2	79	68
3031	Khandesh	1915-36	14-1-36	10A	10	10.2	12.3	0.3	21.4	30	197	6900	5.60	12.61	10.1	72.4	753	10.2	204.0	2091	4	0.8	12.0	79	66
3071	Khandesh	1915-36	14-1-36	12A	10	..	..	..	..	29	170	5900	5.35	13.02	12.0	60.5	678	11.9	178.4	2123	4	0.6	13.5	79	65
3031	Khandesh	1915-36	14-1-36	12B	10	..	..	..	..	29	182	7300	5.03	14.63	12.3	63.9	786	12.3	163.2	2253	4	0.5	11.2	80	68
3439	Khandesh	1916-37	21-12-36	10A	10	10.5	12.9	0.4	22.3	53	184	6900	5.40	12.01	10.4	49.2	501	10.2	181.6	1852	4	0.6	12.1	79	62
3439	Khandesh	1916-37	21-12-36	10B	10	..	..	..	..	30	196	7200	5.40	13.54	10.3	68.0	707	10.4	104.0	2018	4	0.8	13.1	79	63
3439	Khandesh	1916-37	21-12-36	12B	10	..	..	..	..	50	182	7200	5.40	14.65	12.1	49.2	505	12.3	103.2	2007	4	0.8	11.4	79	63
3927	Khandesh	1937-38	4-3-38	8B	10	12.3	12.0	0.4	23.0	22	226	7250	4.00	12.07	8.1	71.7	910	8.3	212.0	2000	4	0.8	11.8	87	69
3927	Khandesh	1937-38	4-3-38	8C	10	..	..	..	..	22	213	7250	4.00	12.63	8.2	68.9	811	7.9	287.2	2260	4	0.6	12.3	87	70
3927	Khandesh	1937-38	4-3-38	10C	10	..	..	..	..	55	218	8400	5.55	14.20	10.0	71.5	735	10.2	204.1	2085	4	1.0	13.9	86	66

* Diameter of ring frame front roller : 1". Diameter of rings : 14".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

9 (a).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
969	Ujjain	Ujjain ..	1930-31	2604	Ujjain	Ujjain ..	1934-35
251	"	" ..	1931-32	3028	"	" ..	1935-36
370	"	" ..	1932-33	3453	"	" ..	1936-37
107	"	" ..	1933-34	3958	"	" ..	1937-38

J.—SPINNING TESTS.

Treatment :—

- (a) *Blow-room*—Upto 1934-35 (inclusive):—Poreupine, Crighton (twice). Hopper, Scutcher (3 times). 1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber Inter, Rover and spun from single hank roving on Ring Frame No. 1 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

UJJAIN (UJJAIN).								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. .. Creamy-white.	Creamy-white; slightly bright.	White	White to creamy-white; brightish.	Creamy-white.	White	White	White	White.
ness	Fairly leafy ..	Occasional stain; fairly leafy.	Leafy	Occasional stain; somewhat leafy.	Occasionally stained; leafy.	Leafy; a little stained.	Leafy	Fairly leafy; a little stained.
.. ..	Good	Good	Soft and fairly good.	Good smooth ..	Smooth ..	Good	Good	Fair.
ng and neppl- ..	A good deal knotted.	Fairly ginned.	Somewhat knotted and nepped.	Well-ginned ..	Well-ginned ..	Well-ginned ..	..	Well-ginned.
.. ..	1.0% unginned	2% .. ..	..	Contains a few unginned seeds.	Contains 1.3% seeds.	Contains 0.75% full clean seeds.	2.44%	Some.
Silver .. ..	..	Almost clean ..	Almost clean ..	Clean	Clean	Fairly clean ..	Leafy	A little leafy.
Web .. ..	..	Nep-free; a trifle cloudy.	Good	Even and nep-free.	Good	Web good ..	A little nepgy	Good.
nt of 10 flat ..	..	10.8 grams ..	17.7 grams ..	18.5 grams ..	20.0 grams ..	17.1 grams ..	..	24.9 grams.
arks	Staple irregular and weak.	..	Slightly watered	..	..	..	..	..

(b) *Yarn* :—

UJJAIN (UJJAIN).								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness	Clean	Fairly clean ..	Almost clean ..	Clean	Almost clean ..	Clean	Fairly clean ..	A little leafy.
ness	Fairly even in lower counts.	..	Even in two lower counts.	Even	Even	Even	Even in the lower count only.	Even.
ness	Fairly free of nep.	Somewhat nepgy.	Practically free of nep.	Nep-free ..	Fairly free of nep.	Nep-free ..	Fairly free of nep.	A little nepgy.
ness	A little slubby.	Slubby ..	A trifle slubby.	..	..	..	..	..
arks .. ..	..	..	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 9 (a) on page 104.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

UJJAIN (UJJAIN).

		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	Branch ..	Branch ..	Branch ..	Branch ..	Branch ..	Omra ..	Omra ..	Omra.
Class ..	.. ..	Fully good	Fully good to fine	Fully good	Fully good	Fully good	Fully good	Fully good M.G.	Fully good M. G.
Colour ..	.. ..	White ..	White ..	Whitish ..	White ..	White ..	Fairly white	Dull ..	White.
Staple Length	.. ..	$\frac{1}{4}$ inch ..	$\frac{3}{4}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{3}{4}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{3}{4}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{3}{4}$ inch.
Staple Strength	.. ..	Fair ..	Fair ..	..	Fair ..	Good ..	Good ..	Fairly good	Good.
Regularity ..	.. ..	Fair ..	Good ..	Irregular	Very fair	Fair ..	Good ..	Fairly good	Good.
Value above or below contract rate	.. ..	Rs. 10 off	Rs. 20 on	Rs. 5 off	Rs. 5 off	Rs. 20 on	Rs. 18 on	Rs. 1 on	Rs. 8 on.
Basia ..	.. ..	Rs. 200 ..	Rs. 220 ..	Branch F.G. April May 1933.	Rs. 199 ..	Rs. 252 ..	Rs. 201 ..	Rs. 208 ..	Rs. 192.
Date of Valuation	.. ..	5-2-31 ..	10-2-32 ..	..	22-1-34 ..	8-2-35 ..	4-1-36 ..	30-12-36..	24-2-38.
Remarks	.. ..	..	..	Silky with fine fibres; leafy.	..	..	..	..	..

* Report since 1932-33 is made up by the mill supplying the sample.

Table 9 (a).—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING SPINNING PARTICULARS *						YARN TEST RESULTS.										PREPARATION (Y).		RELATIVE HUMIDITY (%).
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	LEA.			BALISTICO.			Evenness Class.	Neps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.			
													Counts Actual	Strength (lbs)	Count-Strength Product	Counts Actual	Work of Rupture (inch-lb)	Count-Work Product.								
000	Ujjain	1930-31	3-2-31	11.1	10.1	0.2	20.2	0	194	..	5.21	12.03	9.0	125.0	1,257	10.0	247.2	2,172	3	2.0	12.2	81	63	08		
000	"	1930-31	3-2-31	..	..	..	..	8	180	..	6.43	13.02	12.1	90.7	1,097	12.0	197.0	2,371	4	2.5	13.0	81	67	09
000	"	1930-31	3-2-31	..	..	..	..	7	170	..	6.28	15.08	13.7	70.5	1,080	13.9	154.1	2,140	0	2.6	14.0	82	70	74
1251	Ujjain	1931-32	3-2-32	10.9	11.4	0.5	21.6	44	187	7250	6.22	12.02	12.1	87.1	1,054	11.8	190.0	2,312	4	2.0	13.3	82	60	71		
1251	"	1931-32	4-2-32	..	..	..	..	42	175	7300	6.38	15.08	12.5	80.1	1,081	14.6	173.2	2,356	5	1.2	14.5	81	66	70
1251	"	1931-32	4-2-32	..	..	..	..	42	183	7800	6.41	15.07	13.4	91.3	1,223	13.8	109.4	2,338	5	2.2	15.3	81	66	70
1070	Ujjain	1932-33	23-2-33	11.0	9.0	0.4	20.6	7	190	7350	6.66	13.02	11.0	100.1	1,191	12.2	205.2	2,503	3	1.8	15.0	83	69	70		
1070	"	1932-33	24-2-33	..	..	..	..	80	190	8300	6.58	15.07	14.3	81.3	1,205	14.1	178.4	2,515	4	1.2	15.0	82	67	72
2107	Ujjain	1933-34	30-1-31	11.1	10.8	0.2	20.8	0	202	7000	6.42	12.03	10.0	108.7	1,587	10.1	280.4	2,832	3	0.8	12.2	79	67	67		
2107	"	1933-34	20-1-34	..	..	..	..	0	107	7450	6.32	13.02	11.8	133.7	1,578	12.0	236.4	2,836	3	0.5	13.1	80	67	72
2107	"	1933-34	20-1-31	..	..	..	..	7	200	8000	6.43	11.08	12.1	136.3	1,610	12.0	243.2	2,918	3	0.5	14.2	79	67	72
2107	"	1933-34	1-2-31	..	..	..	..	51	101	5200	6.34	13.07	11.3	106.3	1,320	11.1	188.8	2,062	4	0.5	15.1	82	61	68
2004	Ujjain	1934-35	18-2-35	10.4	11.1	0.2	20.5	0	200	7600	6.32	13.02	12.2	120.1	1,400	12.0	237.2	2,840	3	2.0	13.5	79	65	68		
2004	"	1934-35	18-2-35	..	..	..	..	7	182	7500	6.10	11.08	14.3	99.0	1,424	14.1	202.0	2,848	4	1.5	11.8	80	68	70
2004	"	1934-35	19-2-35	..	..	..	..	0	192	8200	5.10	15.07	11.0	111.2	1,357	11.1	203.0	2,871	1	2.0	13.5	80	68	69
2004	"	1934-35	22-2-35	..	..	..	..	30	180	7000	6.93	15.07	10.1	69.0	1,141	10.0	165.2	2,742	5	1.8	15.5	80	70	71
3025	Ujjain	1936-70	10-1-36	11.6	11.1	0.2	21.8	0	198	7550	6.30	13.02	11.0	123.0	1,404	12.2	220.8	2,767	4	0.5	13.6	79	70	70		
3025	"	1936-30	11-1-36	..	..	..	..	15	180	8950	6.30	14.08	11.3	92.8	1,327	14.2	100.1	2,704	4	0.5	14.8	78	65	65
3025	"	1936-36	11-1-36	..	..	..	..	20	186	8000	6.30	15.07	11.3	110.2	1,570	14.0	202.4	2,834	4	0.8	15.0	78	65	61
8453	Ujjain	1930-37	5-1-37	14.8	11.0	0.5	27.6	22	107	7600	6.13	13.02	12.8	63.2	800	12.7	188.1	2,803	3	1.0	13.5	81	65	68		
3453	"	1936-37	5-1-37	..	..	..	..	22	186	7000	6.32	14.08	14.4	60.0	815	11.0	106.1	2,170	4	1.0	11.0	80	68	73
3453	"	1936-37	5-1-37	..	..	..	..	36	181	8000	6.32	15.07	11.0	79.0	1,111	14.5	182.1	2,015	5	1.5	15.7	70	66	72
3058	Ujjain	1937-38	7-3-38	12.0	11.4	0.1	23.5	58	212	7000	5.45	13.02	12.2	70.8	971	12.7	189.2	2,407	3	2.8	13.3	81	69	68		
3058	"	1937-38	7-3-38	..	..	..	..	56	196	7000	5.12	14.08	13.8	73.0	1,020	14.2	170.2	2,545	3	2.5	14.1	81	68	60
3058	"	1937-38	10-3-38	..	..	..	..	15	194	8500	5.24	15.07	11.9	87.7	1,210	11.1	183.0	2,380	3	2.2	15.3	85	67	68

* Diameter of ring from front roller, 1". Diameter of rings, 11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

9 (b).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
Ujjain	Mandsaur	1930-31	3064	Ujjain	Mandsaur	1935-36
"	"	1932-33	3454	"	"	1936-37
"	"	1933-34	3956	"	"	1937-38
"	"	1934-35				

I.—SPINNING TESTS.

Equipment :—

(a) *Blow-room*:—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* :—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

UJJAIN (MANDSAUR).								
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white ..	White; brightish.	White to creamy-white; brightish.	White ..	White to creamy-white.	Creamy-white ..	White to creamy-white.
..	..	Leafy; stained.	Somewhat leafy.	Fairly clean ..	Fairly leafy ..	Somewhat leafy; a little stained.	Leafy; a little stained.	Fairly leafy.
..	..	Goodish ..	Roughish ..	Good ..	Good ..	Roughish ..	Fair ..	Fair.
and nep-		Fairly well-ginned	Good ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned.
..	..	2% unginned	3% unginned ..	..	Contains 2.9% seeds and kapa.	..	0.94% ..	Some.
..	..	..	Clean ..	Clean ..	Clean ..	Fairly clean ..	Contains a little leaf.	Fairly clean.
..	..	..	Fairly good; considerable shedding.	Good ..	Good ..	Good ..	A little leafy but free from nep.	Good; nep-free.
10 flat	..	..	20.1 grams	15.7 grams	19.6 grams	18.4 grams	19.5 grams	20.3 grams.
..	..	..	Excessive yarn breakage.	..	..	..	..	..

(b) *Yarn* :—

UJJAIN (MANDSAUR).								
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Clean ..	Clean ..	Clean ..	Almost clean ..	Clean ..	A little leafy ..	Fairly clean.
..	..	Fairly even	Fairly even ..	Even in two lower counts.	Fairly even ..	Even ..	Fairly even ..	Even.
..	..	..	Almost nep-free.	Free of nep ..	Practically free.	Free of nep ..	Almost free of nep	Free of nep.
..	..	..	..	..	..	A little slubby ..	..	..
..	..	A little leafy	..	..	..	..	..	..

Spinning Tests Details and Results :—See Table 9 (b) on page 107.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

		UJJAIN (MANDSAUR).						
		1030-31.	1032-33.	1033-34.	1034-35.	1035-36.	1036-37.	1037-38.
Contract valued under	.. ..	Brouch.	Oomra.	Oomra.	Brouch.	Oomra.	Oomra.	Oomra.
Class	.. ..	Fully good.	Fine.	Fine.	Fully good.	Fully good.	Fully good M.G.	Fully good M. G.
Colour	.. ..	White.	White.	White.	White.	Dull white.	White.	White spotted.
Staple Length	.. ..	7/8 inch.	3/4 inch.	21/32 inch.	19/32 inch.	11/16 inch.	5/8 inch.	11/16 inch.
Staple Strength	.. ..	Fair.	Fair.	Fair.	Good.	Fair.	Fairly good.	Good.
Regularity	.. ..	Fair.	Fair.	Fair.	Fair.	Irregular.	Fairly good.	Very poor.
Value above or below contract rate	.. ..	Rs. 10 off.	Rs. 10 on.	Fair.	Rs. 5 on.	Rs. 5 on.	Rs. 3 off.	Rs. 3 on.
Basis	.. ..	Rs. 203.	Rs. 188.	Rs. 183.	Rs. 252.	Rs. 182.	Rs. 209.	Rs. 162.
Date of valuation	.. ..	5-2-31.	..	15-2-31.	8-2-35.	30-1-36.	30-12-36.	24-2-38.
Remarks	.. ..	..	..	..	..	..	..	..

* Report since 1032-33 is made up by the mill supplying the sample.

Table 9 (b).—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE AND HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALANCE.			Evenness Class.	Knots per yard.	Turns per inch Actual.	Spiraling Room.	Spiraling Room.	
															Counts Actual.	Strength (lbs.)	Count.	Counts Actual.	Work of Rupture (lb.-in.)	Count-Work Product.						
970	Mandsaur	1930-31	3-2-31	10	10	13.1	9.9	0.5	22.1	110	191	..	5.10	12.05	10.1	113.0	1,117	10.1	220.4	2,327	4	2.5	12.3	81	05	08
970	"	1930-31	3-2-31	12	..	..	..	..	..	16	189	..	5.32	13.92	11.8	90.7	1,070	11.8	190.4	2,217	5	2.7	13.0	81	07	07
970	"	1930-31	3-2-31	14	..	..	..	..	..	33	176	..	6.13	15.09	11.0	58.1	918	11.2	140.6	2,121	0	2.5	14.6	82	70	75
1601	Mandsaur	1932-33	4-1-33	10	10	12.8	12.0	0.6	23.8	73	184	6,300	5.31	12.03	10.0	71.1	711	10.0	100.8	1,009	4	1.0	12.1	80	09	72
1601	"	1932-33	4-1-33	12A	..	..	..	..	..	102	170	6,800	5.12	13.92	11.9	52.7	639	11.9	109.2	2,013	5	1.0	13.4	82	07	74
1601	"	1932-33	5-1-33	12B	..	..	..	..	..	87	177	7,150	5.32	11.03	12.1	62.0	750	12.3	180.4	2,110	5	1.2	11.1	80	07	74
2146	Mandsaur	1933-34	10-2-34	10	10	8.9	10.8	0.3	19.0	55	193	6,500	5.21	12.03	10.3	91.2	970	10.0	203.6	2,600	3	0.8	12.2	83	09	72
2146	"	1933-34	20-2-34	12	..	..	..	..	..	15	190	7,200	5.57	13.92	11.9	81.2	960	12.1	205.2	2,183	3	0.8	13.5	81	00	72
2146	"	1933-34	20-2-34	14	..	..	..	..	..	58	178	7,700	6.10	15.07	11.2	71.7	1,018	11.1	191.1	2,307	5	1.0	15.5	81	70	72
2606	Mandsaur	1934-35	19-2-35	10	10	12.7	10.3	0.3	21.0	0	202	7,000	5.12	12.03	10.0	110.7	1,107	9.0	236.8	2,512	4	1.0	12.0	81	09	06
2606	"	1934-35	19-2-35	12	..	..	..	..	..	15	106	7,150	5.33	13.92	12.5	80.0	1,000	12.1	198.8	2,405	5	1.2	13.5	70	08	09
2606	"	1934-35	19-2-35	14	..	..	..	..	..	51	180	8,000	6.15	15.07	11.2	81.6	1,150	11.1	171.0	2,453	5	1.2	15.1	80	08	07
3064	Mandsaur	1935-36	4-2-36	8A	10	9.4	13.1	0.3	21.7	33	186	5,500	5.00	11.31	8.2	55.1	451	8.2	106.0	1,607	3	0.8	11.2	81	72	03
3064	"	1935-36	4-2-36	8B	..	..	..	..	..	33	192	6,900	5.20	12.07	8.1	81.7	686	8.2	218.8	2,010	3	0.8	12.2	82	09	05
3064	"	1935-36	4-2-36	10B	..	..	..	..	..	27	174	7,100	5.11	11.29	10.2	72.2	736	10.0	208.0	2,080	4	0.5	11.5	70	05	09
3454	Mandsaur	1936-37	5-1-37	8A	10	10.0	13.3	0.4	22.9	22	182	6,600	5.10	11.31	8.5	58.4	100	8.0	211.2	1,816	4	0.5	11.0	81	06	06
3454	"	1936-37	7-1-37	8B	..	..	..	..	..	22	192	6,300	3.95	12.07	8.1	107.9	874	8.1	288.8	2,330	4	0.8	11.7	80	04	72
3454	"	1936-37	6-1-37	10A	..	..	..	..	..	64	188	7,100	4.80	13.58	10.2	73.1	746	10.1	208.8	2,100	4	0.8	13.2	81	01	74
3454	"	1936-37	6-1-37	10B	..	..	..	..	..	18	160	7,500	4.89	11.29	0.0	66.0	659	10.1	210.6	2,218	4	0.5	13.6	80	01	70
3956	Mandsaur	1937-38	3-3-38	8	10	11.3	11.9	0.3	22.1	41	210	7,200	1.81	12.07	8.3	87.2	724	8.1	274.8	2,250	3	0.8	11.7	80	00	08
3956	"	1937-38	4-3-38	10A	..	..	..	..	..	18	216	7,000	6.55	13.58	10.1	67.0	677	10.1	197.6	1,906	4	0.5	13.1	85	70	07
3956	"	1937-38	4-3-38	10B	..	..	..	..	..	0	218	8,300	6.53	14.29	10.1	81.0	824	10.2	210.4	2,164	4	0.5	13.8	85	70	07

* Diameter of ring frame front roller : 8". Diameter of rings : 14".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

10.—MOGLAI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Weight (lbs.)
1604	Moglai	Partur	1932-33	11
2145	"	Partur	1933-34	9
2665	"	Partur	1934-35	12
3029	"	Partur	1935-36	11
3458	"	Partur	1936-37	11½
3899	"	Partur	1937-38	11

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times). 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

	MOGLAI.					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour ..	Creamy-white	White to creamy-white.	Dullish white creamy-white.	White to creamy-white; brightish.	Creamy-white to white; darkish tinge.	White.
Oiliness ..	Leafy	Leafy	Leafy	Leafy	A trifle stained	Very leafy.
..	Good	Good roughish	Good	Good	Fair	Rough.
..	Good	Well-ginned	Well-ginned	Fairly well-ginned	Well-ginned	Well-ginned.
..	2% small size, ginned, partly ginned and unginned.	1.1% unginned	..	..	..	..
..	Almost clean	Good	Clean	Clean	Good; slightly leafy	Almost clean.
..	Good	Good	Good	Even and nep-free	Good but a little leafy.	Good; absolutely free of nep.
Weight of 10 flat	17.9 grams	15.9 grams	20.4 grams	13.7 grams	..	14.3 grams.
..	Spots of stain and unripe fibres noticeable	8 lb. sample	..	..	..	..

(b) *Yarn :—*

	MOGLAI.					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Clean	Clean	Clean	Fairly clean	A little leafy	Clean.
..	Even	Somewhat uneven	Fairly even	Even in the lower counts.	Fairly even	Even.
..	Practically nep-free	Free of nep	Almost free of nep	Free of nep	Almost free of nep.	Free of nep.
..	..	..	A little shabby	A little shabby	..	..
..

Test Details and Results.—See Table 10 on page 110.

II.—GRADER'S REPORT* FOR MOGLAI COTTON.

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		MOGLAI.					
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class ..	.. ..	Fine.	Fine.	Fine.	Fully good.	Fully good M. G.	Fully good M. G.
Colour ..	.. ..	White.	Dull white.	White.	Fairly white.	Dull white.	Dull white.
Staple Length	.. ..	$\frac{3}{4}$ inch.	$\frac{5}{8}$ inch.	$\frac{1}{2}$ inch.	$\frac{5}{8}$ inch.	$\frac{1}{2}$ inch.	$\frac{1}{2}$ inch.
Staple Strength	.. ..	Fair.	Fair.	Fair.	F. Good.	Good.	Good.
Regularity ..	.. ..	Fair.	Fair.	Fair.	Good.	Good.	Fair.
Value above or below contract rate	..	Rs. 10 on.	Rs. 10 off.	Rs. 5 on.	Rs. 3 on.	Rs. 2 on.	Rs. 5 off.
Basis ..	.. ..	Rs. 188.	Rs. 183.	Rs. 226.	Rs. 201.	Rs. 208.	Rs. 151.
Date of Valuation	.. ..	9-1-33.	15-2-34.	8-2-35.	4-1-36.	8-1-37.	20-12-37.
Remarks	.. ..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 10.—SPINNING TEST RESULTS FOR MOGLAI COTTON.

1		2		3		4		5				6				7				8				9		10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Sample No.	Cotton	Season.	Date of spinning	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.*				RING SPINNING PARTICLES.*				YARN TEST RESULTS				TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
						Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour	Front Rotor Speed, R. P. M.	Spindle R. P. M.	Heads.	Turns per inch.	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)	Twists (lb.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1001	Moghal	1932-33	6-1-33	10A	10	11.0	10.7	0.9	21.6	7.5	152	6,550	5.52	12.02	11.0	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2</

* Diameter of ring and twist (not in 20—10). Diameter of ring—10.

† It is to be noted that the total loss for a small sample spinning is low, as the material is for the ring spinning and all materials it would be less than shown here.

11.—WESTERNS COTTON.

These samples have been tested by arrangements with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2254	Westerns	Guntakal	1933-34.
2749	Westerns	Guntakal	1934-35.
3151	Westerns	Guntakal	1935-36.
3686	Westerns	Raichur	1936-37.
4012	Westerns	Raichur	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	WESTERNS.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; dullish.	Creamy-white to creamy.	White to creamy-white.
Cleanliness	Leafy.	Leafy.	Leafy.	Leafy.	Leafy.
Feel	Good.	Good smooth.	Good.	Soft.	Fair.
Ginning and neppiness ..	Well-ginned.	A trifle knotted.	Well-ginned.	Good.	Well-ginned.
Seeds	1.7% partly-ginned.	..	..	..	Contains some seeds.
Card Sliver	Clean.	Clean.	Almost Clean.	Leafy.	Fairly clean.
Card Web	Even and nep-free.	Even and nep-free.	Good.	Fair; a little neppy.	A trifle neppy.
Weight of 10 flat strips ..	13.8 grams.	18.2 grams.	13.6 grams.	23.6 grams.	17.7 grams.
Remarks .. .. .	..	..	..	..	..

(b) Yarn :—

	WESTERNS.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean.	Clean.	Almost clean.	Fairly leafy.	Fairly clean.
Evenness	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even.
Neppiness	Free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.	Fairly free of nep.
Slubbiness .. .. .	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 11 on page 113.

II.—GRADER'S REPORT* FOR WESTERNS COTTON.

		WESTERNS.			
		1933-34.	1934-35.	1935-36.	1936-37.
		1937-38.			
Contract valued under	.. ..	Broach.	July/Aug. Broach.	Broach April/May.	July/Aug. Broach.
Class	.. ..	Strict fine.	Fine.	Fine.	Fully good.
Colour	.. ..	White.	White.	Brownish white.	Brownish white.
Staple Length	.. ..	31/32 inch.	Barely 13/16 inch.	29/32 inch.	13/16 inch.
Staple Strength	.. ..	Good.	Fair.	Fairly Good.	Fair.
Regularity	.. ..	Good.	Very irregular.	Regular.	Slightly irregular.
Value above or below contract rate	.. ..	Rs. 35 on Apr./May Broach.	Rs. 25 on.	Rs. 35 on.	Rs. 3 on.
Basis	.. ..	Rs. 183.	Rs. 232.	Rs. 203.	Rs. 164.
Date of Valuation	.. ..	1st May 1934.	3-7-35.	20-4-36.	25-3-38.
Remarks	.. ..	..	..	..	..

* The reports for 1933-34 and 1936-38 onwards are made by the mill supplying the sample.

Table 11.—SPINNING TEST RESULTS FOR WESTERNS COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*								YARN TEST RESULTS.										TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Room Loss.	Total Loss.	Yarn Breakages per 100 spindles	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.		Turns per Inch.	Counts Actual.	I.F.C.			HANDSIC.			Steps per yard.	Turns per Inch Actual.	Spinning Room.	Spinning Room.					
													Count-Strength Product.	Count-Work Product.			Work of Rupture (in.-lb.)	Count-Work Product.	Counts Actual.	Count-Strength Product.	Count-Work Product.	Work of Rupture (in.-lb.)									
2234	Westerns..	1933-34	30-4-34	20A	10	12.0	9.0	0.4	10.4	5	196	9350	6.07	17.94	10.4	1679	81.5	1679	19.0	128.0	2509	4	1.2	17.4	88	66	72				
2234	Westerns..	1933-34	1-3-34	24						32	170	9700	5.67	19.73	21.1	1513	62.8	1513	24.2	100.9	2430	4	1.5	19.3	88	70	71				
2234	Westerns..	1933-34	1-3-34	30						17	133	9750	0.94	27.11	29.3	1392	17.5	1392	29.3	81.2	2407	5	1.2	22.3	84	69	70				
2719	Westerns..	1934-35	21-6-35	20A	10	12.5	9.8	0.4	21.4	10	196	9050	5.33	17.94	10.6	1000	85.0	1000	19.7	130.1	2560	4	2.0	17.1	87	71	79				
2719	Westerns..	1934-35	20-6-35	24						14	170	9000	5.32	19.72	23.1	1350	67.1	1350	23.6	107.2	2570	4	1.9	19.0	87	74	81				
2719	Westerns..	1934-35	20-6-35	30						30	151	9000	6.58	27.11	30.1	1119	17.1	1119	29.1	87.2	2504	5	1.5	22.1	85	77	74				
3151	Westerns..	1935-36	23-4-36	20A	10	9.1	7.9	0.4	16.6	31	103	9550	5.95	17.98	20.5	1291	67.5	1291	20.0	127.9	2556	4	1.2	17.3	88	66	70				
3151	Westerns..	1935-36	22-4-36	24						55	176	9550	5.67	19.73	21.5	1280	52.5	1280	23.8	105.2	2501	1	1.2	19.0	89	69	69				
3151	Westerns..	1935-36	23-4-36	30						26	142	8900	6.94	27.26	29.1	1319	45.9	1319	29.1	83.2	2421	5	1.0	22.0	89	68	72				
3086	Westerns..	1936-37	6-7-37	20A	10	15.8	14.8	0.3	23.4	10	192	9350	5.97	17.93	20.3	1145	71.2	1145	20.1	113.6	2283	1	1.2	17.3	87	77	78				
3086	Westerns..	1936-37	7-7-37	24						13	177	9400	6.00	19.73	21.3	1300	57.2	1300	23.8	99.2	2361	1	1.0	19.1	85	80	78				
4012	Westerns..	1937-38	26-4-38	14	10	13.0	11.0	0.4	23.0	22	215	8950	1.07	11.08	11.2	1312	92.1	1312	14.0	101.8	2085	3	0.9	11.0	89	69	68				
4012	Westerns..	1937-38	21-4-38	16						24	215	9000	5.51	15.07	16.3	1219	71.8	1219	16.3	130.1	2272	3	0.8	14.9	92	69	68				
4012	Westerns..	1937-38	21-4-38	20A						16	193	9400	5.68	17.98	20.5	1099	53.6	1099	20.2	103.4	2190	3	1.2	10.9	90	69	68				
4012	Westerns..	1937-38	20-4-38	20B						26	169	10900	5.80	19.26	20.8	1290	62.0	1290	20.6	107.2	2208	1	0.8	18.3	90	69	69				

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs., for a bulk sample spun under full conditions it would be less than shown here. This cotton shows signs of deterioration in quality since 1931-35.

12.—MIRAJ COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2532	Miraj	Shedbal	1933-34
2750	Miraj	Shedbal	1934-35
3270	Miraj	Shedbal	1935-36
3687	Miraj	Shedbal	1936-37
4011	Athni	Shedbal	1937-38

I.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—1933-34 :—Porcupine, Oighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Oighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	MIRAJ.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white.	Creamy-white	Creamy-white.	Creamy-white.	Creamy-white
Cleanliness	Leafy.	Leafy.	Leafy.	Fairly leafy.	Leafy.
Feel	Soft silky.	Poorish feel.	Good.	Good.	Good.
Ginning and neppiness	Well-ginned.	Somewhat knotted.	Somewhat knotted.	Well-ginned.	..
Seeds	1% partly-ginned.	..	..	..	Contains cut and whole seeds 0.55%.
Card Sliver	Clean.	Almost clean.	Almost clean.	Good ; n little leafy.	Fairly clean.
Card Web	Even & nep-free.	Good.	Good.	Good ; nep-free.	..
Weight of 10 flat strips	15.5 grams.	16.3 grams.	15.0 grams.	20.0 grams.	14.6 grams.
Remarks .. .. .	..	..	..	..	..

(b) *Yarn* :—

	MIRAJ.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean.	Almost clean.	Almost clean.	Fairly clean.	Almost clean.
Evenness	Fairly even.	Even.	Even.	Even.	Even
Neppiness	Free of nep.	Nep-free.	Practically free of nep.	Free of nep.	Fairly free of nep.
Slubbiness .. .. .	..	..	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 12 on page 116.

II.—GRADER'S REPORT FOR MIRAJ COTTON.

		MIRAJ.			
		1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Broach.	July/Aug. Broach.	Broach July/Aug.	July/August Broach.
Class	.. ..	Fully good.	Fully good.	Fully good.	Fine.
Colour	.. ..	Creamy to light brown.	Brownish.	Brownish.	Brownish White.
Staple Length	.. ..	13/16 inch.	Barely 3/4 inch.	3/4 inch.	7/8 inch.
Staple Strength	.. ..	Fair.	Fair.	Good.	Good.
Regularity	.. ..	Fair.	Somewhat irregular.	Fair.	Regular.
Value above or below contract rate	.. ..	Rs. 15 on April/May Broach.	Rs. 20 on.	Rs. 5 off.	Rs. 20 on.
Basis	.. ..	Rs. 183.	Rs. 232.	Rs. 220.	Rs. 164.
Date of Valuation..	.. ..	1-5-34.	3-7-35.	1-7-36.	25-3-38.
Remarks	.. ..	..	..	..	..

* The report for 1933-34 and 1935-36 onwards is made by the mill supplying the sample.

Table 12.—SPINNING TEST RESULTS FOR MIRAJ COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.				TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)	Testing Room.						
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength, lbs.	Count-Strength Product.				Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Livings Class.	Steps per yard.	Turns per inch. Actual.
2553	Miraj	1933-34	30-4-34	20	10	13.0	9.1	0.1	21.2	16	100	9550	5.32	17.08	19.8	60.0	1360	20.0	111.8	2236	4	1.0	17.3	88	93	80
2553	Miraj	1933-31	1-6-34	24A		..	..	..	..	36	176	9500	0.53	19.73	21.8	10.4	1151	21.2	91.2	2207	5	1.2	18.9	88	70	71
2553	Miraj	1933-34	1-5-31	24B		..	..	..	..	32	178	9000	0.58	20.71	24.8	51.3	1272	21.7	89.1	2263	5	1.0	19.0	88	60	68
2760	Miraj	1934-35	21-6-35	20	10	10.6	0.2	0.4	10.2	26	105	9550	5.03	17.03	19.7	63.1	1831	20.4	132.6	2705	3	0.5	17.3	80	70	80
2750	Miraj	1934-35	21-6-35	24		..	..	..	..	41	178	9550	6.25	19.73	23.6	71.5	1687	23.5	114.8	2693	4	0.8	18.8	89	71	74
3270	Miraj	1935-36	14-7-36	16	10	11.0	8.0	0.3	19.7	6	109	8900	5.42	15.07	16.0	80.0	1438	16.3	143.0	2341	3	1.2	15.2	87	72	71
3270	Miraj	1935-36	13-7-36	20		..	..	..	..	21	102	9500	5.26	17.08	20.3	63.3	1285	20.1	110.2	2215	4	0.8	16.9	87	73	71
3270	Miraj	1935-36	14-7-36	21		..	..	..	..	50	102	9000	6.10	19.73	24.2	43.0	1062	23.0	89.8	2116	1	1.0	18.0	87	71	70
3087	Miraj	1936-37	7-7-37	16	10	8.1	4.9	0.1	17.5	0	107	8300	5.51	15.07	16.0	104.5	1672	16.0	109.1	2710	3	0.5	15.3	86	74	70
3087	Miraj	1936-37	8-7-37	20		..	..	..	..	5	102	9250	4.50	17.08	20.1	78.0	1503	20.0	121.0	2492	3	0.5	17.2	80	77	80
3087	Miraj	1936-37	8-7-37	24		..	..	..	..	11	173	9250	5.71	19.73	23.5	64.3	1511	27.3	100.8	2489	1	0.5	16.0	80	74	80
4011	Ahmal	1937-38	19-4-38	10	10	12.8	9.1	0.0	21.2	6	217	9350	5.43	15.07	15.6	101.1	1582	15.8	107.8	2493	3	1.0	15.1	90	60	60
4011	Ahmal	1937-38	19-4-38	20		..	..	..	..	31	214	10300	5.10	17.98	20.1	70.2	1411	20.5	112.0	2206	3	1.0	17.3	92	69	70
4011	Ahmal	1937-38	20-4-38	24		..	..	..	..	15	187	10000	0.10	19.73	24.5	50.3	1232	23.0	96.1	2304	1	1.2	18.6	91	69	63

* Diameter of Ring Frame front roller—1". Diameter of rings—1½".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

13.—SURAT COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Union, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1075	Surat	1930-31	3142	Surat	1935-36
1747	Surat	1932-33	3577	Surat	1936-37
2278	Surat	1933-34	4025	Surat	1937-38
2752	Surat	1934-35			

I.—SPINNING TESTS.

Plantment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 and 1933-34 :—As above but two passages in the Crighton. 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

SURAT.							
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White; bright.	White to creamy-white.	White; bright.	White; bright.	White; bright.	White.	White.
.. ..	Fairly clean.	Fairly clean.	A little leafy.	Fairly clean.	A little leafy.	A little leafy.	Contains some leaf.
.. ..	Good-bodied.	Soft and bodied.	Good silky.	Good soft.	Smooth-bodied.	Good-bodied.	Good soft.
Neppliness	Well-glazed.	Very well-glazed.	Well-glazed.	Well-glazed.	Well-glazed.	Well-glazed.	Well-glazed.
.. ..	1.25% unginned.	0.8%.	..	..	Contains a few unginned seeds.	..	..
.. ..	Clean.	Clean.	Almost clean.	Clean.	Clean.	Clean soft.	A trifle leafy.
.. ..	Good.	Even and nep-free.	Good.	Even and nep-free.	Even and nep-free.	A little neppy; otherwise good.	Fair; a trifle neppy.
Flat strips.	0.7 grams; very light.	12.8 grams.	15.6 grams.	15.0 grams.	11.7 grams.	14.1 grams.	16.8 grams.
.. ..	8-lb. sample.	..	..	..	..	..	..

(b) *Yarn* :—

SURAT.							
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Fairly clean.	Fairly clean.
.. ..	Even.	Even.	Even.	Even.	Fairly even.	Even.	Even.
.. ..	Nep-free.	Free of nep.	Free of nep.	Practically free.	Almost free of nep.	Almost free of nep.	A little neppy.
..
..

Spinning Test Details and Results.—See Table 13 on page 119.

II.—GRADER'S REPORT FOR SURAT COTTON.

		SURAT.						
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	Brouch.	F. G. M. G. Brouch Hedge Contract No. 2. Superfine.	Brouch July/Aug. 1934. Superfine.	Brouch July/Aug. 1935. Superfino.	April/May Brouch 1936. Fine to Superfino.	Brouch April/May 1937. Fine to Superfino.	Brouch April/May 1938. Fine to Superfino.
Class	.. ..	Fine.	Clean white.	White; bright.	White.	White to Creamy- white.	White.	White.
Colour	.. ..	White.	15/16" average.	31/32".	15/16".	Full 31/32".	15/16".	7/8" full.
Staple Length	.. ..	One inch.	Good.	Good.	Very good.	..	Good.	Good.
Staple Strength	.. ..	Fair.	Even.	Very regular.	Regular.	Regular.	Regular.	Regular.
Regularity	.. ..	Fair.	Ra. 50 on.	Ra. 72 on.	Ra. 93 on.	Ra. 50 on.	Ra. 60 on.	Ra. 55 on.
Value above or below contract rate	.. ..	Ra. 80 on.	F. G. M. G. Brouch Contract No. 2 Apr/May, Ra. 182. 18-33.	Ra. 198.	Brouch July/Aug. 1935	Ra. 203.	Ra. 230.	Ra. 157-2-0.
Basis	.. ..	Ra. 160.	..	30.5-31.	..	20.4-30.	4.5-37.	3-5-38.
Date of Valuation	.. ..	10-6-31.	..	..	..	..	Contains little poppory leaf and yellow stains.	Less neppy than last year though staple little short.
Remarks	.. ..	..	..	..	..	..	..	..

* Report since 1932-33 is made by the Mill supplying the sample.

Table 13.—SPINNING TEST RESULTS FOR SURAT COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAMING PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	I.S.A.			BALISTIC.			Kevness class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lbs.)							Count-Work Product.
1075	Surat.	1930-31	10-6-31	24	8	8.2	6.6	0.7	11.5	20	182	9800	5.91	19.73	23.7	61.2	1194	21.5	103.2	2528	4	0.7	18.7	92	69	65
1075	Surat.	1930-31	10-6-31	30						10	158	9350	7.43	23.11	30.1	46.3	1304	30.5	81.8	2193	5	0.5	22.0	92	69	66
1747	Surat.	1932-33	29-4-33	24	10	6.1	7.4	0.5	14.8	64	178	9000	5.55	19.73	23.9	65.5	1565	24.2	104.0	2465	3	1.2	19.3	87	64	60
1747	Surat.	1932-33	2-5-33	30						80	168	10500	6.9	23.11	30.3	42.7	1204	29.7	82.1	2117	1	2.0	22.6	89	67	66
2278	Surat.	1933-34	10-5-34	20	10	5.8	8.5	0.3	14.0	5	196	9000	5.91	17.99	20.2	55.9	1735	19.8	135.8	2089	3	1.0	17.1	89	67	69
2278	Surat.	1933-34	10-5-34	24						27	178	9350	5.42	19.73	23.8	60.3	1636	23.0	108.2	2386	4	1.2	18.8	90	68	68
2278	Surat.	1933-34	10-5-34	30						13	162	9350	6.53	21.86	29.5	51.1	1516	20.0	87.6	2510	5	1.2	20.9	90	67	70
2752	Surat.	1934-35	21-6-35	20	10	6.6	7.9	0.2	14.1		105	9350	6.05	17.93	20.5	84.7	1819	20.1	110.1	2301	3	1.0	17.3	85	79	73
2752	Surat.	1934-35	25-6-35	24						18	179	9350	5.45	19.73	23.6	73.7	1739	23.2	121.0	2377	4	1.2	18.9	86	72	70
2752	Surat.	1934-35	25-6-35	30						17	160	9000	6.71	21.86	29.7	52.1	1550	20.5	91.1	2785	1	1.5	20.4	87	73	72
3142	Surat.	1935-36	17-4-36	20	10	6.1	7.0	0.3	11.7	0	192	9800	5.95	17.93	20.5	78.8	1615	20.3	127.8	2501	3	1.2	17.3	88	70	70
3142	Surat.	1935-36	10-4-36	24						14	171	9300	5.31	19.73	22.9	71.0	1655	22.8	116.2	2619	4	0.8	18.9	89	66	71
3142	Surat.	1935-36	10-4-36	30						17	144	8550	6.76	21.86	30.1	47.2	1421	30.8	86.2	2655	5	1.5	20.8	87	64	73
3577	Surat.	1936-37	22-4-37	20	10	6.6	8.2	0.3	14.5	5	191	9800	6.14	17.93	20.0	91.9	1834	20.1	131.1	2701	3	1.2	17.3	90	67	66
3577	Surat.	1936-37	22-4-37	24						18	170	9400	5.31	19.73	24.2	70.2	1699	21.0	114.0	2736	3	1.5	19.0	90	68	66
3577	Surat.	1936-37	29-4-37	30						7	160	9450	6.67	21.86	30.0	51.7	1551	30.4	90.0	2736	4	1.2	20.9	91	67	65
4025	Surat.	1937-38	20-4-38	20	10	6.5	9.1	0.3	15.2	0	213	10800	6.07	17.93	20.5	90.9	1863	20.6	134.0	2773	3	2.0	17.2	90	67	67
4025	Surat.	1937-38	27-4-38	24						15	191	10200	5.20	19.73	24.7	73.5	1815	24.1	112.8	2752	3	1.8	18.9	89	69	68
4025	Surat.	1937-38	27-4-38	30						13	168	10300	6.54	21.86	30.4	53.2	1617	30.6	89.2	2730	4	1.8	20.7	90	69	66

Diameter of ring frame front roller—1 1/2". Diameter of rings—1 1/4". It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

14. NAVSARI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1076	Navsari	1930-31	11
1778	"	1932-33	20
3141	"	1935-36	11
3683	"	1936-37	11

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 :—As above but two passages in the Crighton.

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NAVSARI.			
	1930-31.	1932-33.	1935-36.	1936-37.
Colour	White; bright.	White; very bright.	White; bright.	White.
Cleanliness	Fairly clean.	Fairly clean.	Clean.	A little leafy; a trifle stained.
Feel	Good-bodied.	Silky and bodied.	Good.	Good bodied.
Ginning and Neppiness ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	0.5% unginned.	..	..	..
Card Sliver	Clean; silky.	Clean and full.	Clean.	Good
Card Web	Very good.	Even and nep-free.	Even and nep-free.	Good; a little neppy.
Weight of 10 flat strips ..	6.5 grams; very light.	15.1 grams.	11.7 grams.	22.2 grams.
Remarks	8 lbs. sample.	..	..	..

(b) Yarn :—

	NAVSARI.			
	1930-31.	1932-33.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	A little leafy.
Evenness	Even.	Fairly even.	Even in the lower counts.	Even.
Neppiness	Free of nep.	Free of nep.	Almost free of nep.	A little neppy.
Slubbiness .. ..	..	..	..	..
Remarks .. ..	..	..	..	..

3. Spinning Test Details and Results :—See Table 14 on page 121.

II.—GRADER'S REPORT FOR NAVSARI COTTON.

				1930-31.				1932-33.*				1935-36.*				1936-37.			
				Broach.				F.G.M.G. Broach Ifalge Contract No. 2.				April/May Broach 1936.				Bronch July/Aug. 1937.			
Contract valued under				i.	..	..	..	Strict fine.				Fine to S. Fine.				Fine to superfine.			
Class				..	..	..	..	Clean white.				White to Creamy-white.				White.			
Colour				..	..	..	..	1 1/2".				Full 1".				15/16".			
Staple Length				..	..	..	..	Good.				..				Good.			
Staple Strength				..	..	..	..	Good.				Regular.				Regular.			
Regularity				..	..	..	..	Rs. 50 on.				Rs. 55 on.				Rs. 65 on.			
Value above or below contract rate				..	..	..	..	July/August Rs. 205.				Rs. 203.				Rs. 207.			
Basis				..	..	..	..	29-5-33.				20-4-36.				22-7-37.			
Date of Valuation				..	..	..	..	..				..				..
Remarks				..	..	..	..	..				..				..

15 (a).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1077	Tiruppur Cambodia	1930-31.
1748	Tiruppur Cambodia	1932-33.
2277	Tiruppur Cambodia	1933-34.
2753	Tiruppur Cambodia	1934-35.
3269	Tiruppur Cambodia	1935-36.
4033	Tiruppur Cambodia	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room* : Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). In 1930-31, it was passed only once thro' the Crighton.

1934-35 onwards : Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* : Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	TIRUPPUR CAMBODIA.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1937-38.
Colour	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	Creamy-white.
Cleanliness	Fairly clean; occasional stain.	Clean.	Fairly clean; occasionally stained.	Clean.	Fairly clean; slightly stained.	Clean.
Feel	Good-bodied.	Good soft.	Good smooth.	Good bodied.	Softish.	Soft.
Glaning and Neppiness ..	Well-ginned, but slightly neppy.	Well-ginned.	Slightly knotted in ginning.	Fairly well-ginned.	A little knotted.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..
Card Sliver	Clean.	Soft and clean.	Almost clean.	Clean and soft.	Almost clean.	Clean.
Card Web	A little neppy and cloudy.	A trifle both neppy and uneven.	Neppy.	Somewhat neppy and uneven.	Somewhat neppy.	Very neppy.
Weight of 10 flat strips ..	19.0 grams.	25.8 grams.	20.5 grams.	23.3 grams.	20.1 grams.	26.1 grams.
Remarks .. ..	..	..	Well-watered	..	Well-watered at the time of pressing.	..

(b) Yarn :—

	TIRUPPUR CAMBODIA.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1937-38.
Cleanliness	Fairly clean	Almost clean.	Almost clean.	Clean.	A little leafy.	Fairly clean.
Evenness	Even.	Even.	Even.	Even.	Even.	Even.
Neppiness	A little neppy.	A little neppy.	Somewhat neppy.	Neppy.	Neppy.	Neppy.
Stubbiness .. ..	..	..	Somewhat slubby.	..	Fairly slubby.	..
Remarks .. ..	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 15 (a) on page 124.

Table 15 (a).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS *				YARN TEST RESULTS										TEMPERATURE (°C.)	RELATIVE HUMIDITY (%)						
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn in stages per hour.	1st Spindle speed, R.P.M.	2nd Spindle speed, R.P.M.	3rd Spindle speed, R.P.M.	1st Actual	1st Strength (lb.)	1st Spindle	2nd Actual	2nd Strength (lb.)	2nd Spindle	3rd Actual	3rd Strength (lb.)	3rd Spindle	4th Actual				4th Strength (lb.)	4th Spindle	5th Actual	5th Strength (lb.)	5th Spindle
1077	Cambodia	1930-31	11-6-31	6.0	10.5	0.6	16.1	5	184	97.9	6.1	13.71	1616	13.5	25.2	21.9	94.2	2415	4	3.2	18.6	92	71	63					
1077	Cambodia	1930-31	11-6-31	..	..	..	..	16	154	6.00	7.05	13.11	1379	17.6	29.6	23.3	84.5	2513	5	3.1	22.3	91	70	62	
1748	Cambodia	1932-33	29-1-31	5.3	12.6	0.5	17.1	45	175	96.3	5.63	10.73	1422	55.5	23.9	21.8	131.8	2318	1	2.0	13.0	87	64	57					
1749	Cambodia	1932-33	2-5-33	..	..	..	..	70	164	10.00	7.06	23.11	1295	17.1	20.1	20.4	73.0	2112	1	3.5	22.3	85	77	65	
2277	Cambodia	1933-34	16-5-34	5.3	11.2	0.3	16.1	10	193	97.00	6.19	17.68	1611	22.2	20.0	23.0	152.3	2413	1	3.2	17.2	89	71	71					
2277	Cambodia	1933-34	16-5-34	..	..	..	..	9	175	95.11	6.22	19.73	1603	27.0	23.9	23.1	131.3	2313	1	3.0	18.9	89	70	70	
2277	Cambodia	1933-34	16-5-34	..	..	..	..	14	162	95.00	7.08	21.83	1609	15.9	23.7	23.3	122.2	2311	1	3.2	21.2	89	67	63	
2753	Cambodia	1934-35	24-6-35	6.2	11.2	0.4	17.8	5	191	97.00	6.10	17.08	1573	26.2	19.7	19.8	177.8	2728	1	3.0	17.4	87	77	63					
2753	Cambodia	1934-35	29-6-35	..	..	..	..	27	180	97.00	5.92	19.73	1723	22.8	24.7	24.7	116.0	2713	1	3.4	18.1	87	70	74	
2753	Cambodia	1934-35	29-6-35	..	..	..	..	24	161	10.00	6.71	21.86	1618	16.8	24.2	24.7	101.1	2511	1	3.0	21.0	87	70	74	
3269	Cambodia	1935-36	17-1-36	7.0	10.7	0.7	18.4	21	179	95.00	6.22	17.08	1701	23.5	12.9	19.8	127.8	2511	1	3.4	17.2	87	71	72					
3269	Cambodia	1935-36	15-7-36	..	..	..	..	6	174	95.00	5.97	19.73	1676	23.6	23.7	23.9	105.9	2510	1	3.2	18.1	87	71	73	
3269	Cambodia	1935-36	15-7-36	..	..	..	..	17	156	95.00	7.01	21.86	1611	16.1	24.0	24.7	101.1	2513	1	3.0	21.1	87	71	73	
4011	Cambodia	1937-38	23-4-38	5.8	11.6	0.5	17.1	16	211	10.00	6.19	17.08	1701	23.5	12.9	19.8	127.8	2511	1	3.4	17.2	87	71	72					
4011	Cambodia	1937-38	23-4-38	..	..	..	..	11	174	95.00	5.97	19.73	1676	23.6	23.7	23.9	105.9	2510	1	3.2	18.1	87	71	73	
4011	Cambodia	1937-38	23-4-38	..	..	..	..	17	156	95.00	7.01	21.86	1611	16.1	24.0	24.7	101.1	2513	1	3.0	21.1	87	71	73	

* Diameter of ring frame for 1st and 2nd—11". Diameter of ring frame for 3rd—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or there about; for better results a larger sample weighing 100 lbs. or there about should be used.

15 (b).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2373	Cambodia	Tiruppur	1933-34
2745	Cambodia	Tiruppur	1934-35
3149	Cambodia	Tiruppur	1935-36
3684	Cambodia	Tiruppur	1936-37
4021	Cambodia	Tiruppur	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	TIRUPPUR CAMBODIA.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; brightish.	Creamy	Creamy-white.
Cleanliness	Clean; somewhat stained.	Clean with occasional stains.	Clean	Fairly clean; a little stained.	Clean.
Feel	Good smooth ..	Good smooth ..	Good smooth ..	Soft	Soft.
Ginning and neppiness ..	Slightly knotted.	Fairly well-ginned	Fairly well-ginned	Well-ginned ..	Well-ginned.
Seeds .. .. .	..	..	..	..	..
Card Sliver	Clean and soft ..	Clean	Clean	Clean	Soft; fairly clean.
Card Web	Cloudy and neppy	Slightly neppy and uneven.	Slightly neppy ..	Very neppy; cloudy.	A trifle neppy.
Weight of 10 flat strips ..	24.7 grams ..	29.7 grams ..	20.3 grams ..	37.4 grams ..	10.8 grams.
Remarks .. .. .	..	..	..	Abnormally heavy strips.	..

(b) Yarn :—

	TIRUPPUR CAMBODIA.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean ..	Almost clean ..	A little leafy ..	A little leafy ..	Fairly clean.
Evenness	Even in the two lower counts.	Fairly even ..	Fairly even ..	Fairly even ..	Even.
Neppiness	Neppy	Neppy	Neppy	Very neppy ..	A little neppy.
Slubbiness	Slubby	A little slubby ..	..	..	..

3. *Spinning Test Details and Results* :—See Table 15 (b) on page 127.

II.—GRADER'S REPORT* FOR TIRUPPUR CAMBODIA.

TIRUPPUR CAMBODIA.											
		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.	
Contract valued under	Broach	..	July/Aug. Broach	..	Broach April/May	..	July/Aug. Broach	..	Broach April/May.
Class	Fully good	..	Fine	..	Fine	..	Fine	..	Barely Fine.
Colour	Creamy	..	Creamy-white	..	Creamy-white	..	Creamy-white	..	Creamy.
Staple Length	31/32 inch	..	31/32 inch	..	15/16 inch	..	15/16 inch	..	15, 16 inch.
Staple Strength	Good	..	Very Good	..	Good	..	Good	..	Good.
Regularity	Good	..	Good	..	Regular	..	Regular	..	Regular
Value above or below contract rate	Rs. 60 on	..	Rs. 80 on	..	Rs. 65 on	..	Rs. 75 on	..	Rs. 72 on.
Basis	Rs. 203 July/Aug. Broach	..	Rs. 232	..	Rs. 203	..	Rs. 225	..	Rs. 157.
Date of Valuation	9-7-34	..	3-7-35	..	20-4-36	..	28-6-37	..	7-4-38.
Remarks

* The reports for 1933-34 and 1935-36 onwards are compiled by the mill supplying the sample.

Table 15 (b).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Count's Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakage per 100 yds. per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	L.S.C.			BALISTIC.								
															Counts Actual.	Strength (lb.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inches)	Count-Work Product.	Twines class.	Steps per yard.	Turns per Inch.			
2373	Tiruppur Cambodia.	1933-34	9-7-34	20	10	6.6	12.5	0.2	18.3	5	200	900	6.25	17.94	10.6	85.6	1673	29.0	121.9	2176	3	3.8	17.0	80	70	75
2373	Tiruppur Cambodia.	1937-34	10-7-34	24						11	179	900	5.54	19.73	21.3	63.3	1611	21.9	101.6	2570	1	3.2	18.7	87	74	79
2373	Tiruppur Cambodia.	1937-34	10-7-34	30						30	160	9600	9.70	21.86	29.3	10.0	1153	29.1	80.0	2120	5	3.5	20.8	87	77	78
2745	Tiruppur Cambodia.	1934-35	13-6-35	20	10	6.7	11.9	0.1	20.9	26	194	9500	6.10	17.09	21.2	80.3	1702	21.3	122.2	2003	1	1.2	17.3	90	63	82
2745	Tiruppur Cambodia.	1934-35	13-6-35	24						14	182	900	5.55	19.73	21.1	70.2	1692	21.9	113.2	2705	1	5.0	10.0	89	70	80
2745	Tiruppur Cambodia.	1934-35	15-6-35	30						13	166	9000	6.04	21.86	29.6	52.7	1300	30.0	90.8	2724	5	5.2	21.2	90	63	80
3149	Tiruppur Cambodia.	1935-36	17-4-36	20	10	1.5	9.7	0.3	14.1	10	191	9300	6.07	17.09	20.2	89.0	1793	19.8	117.0	2922	3	1.2	17.1	89	67	72
3149	Tiruppur Cambodia.	1935-36	20-4-36	24						18	171	9550	5.55	19.73	21.7	63.1	1689	21.9	113.0	2802	1	4.5	10.1	89	66	72
3149	Tiruppur Cambodia.	1935-36	21-4-36	30						7	162	9600	6.89	21.86	29.8	32.2	1556	29.0	93.1	2703	5	4.5	21.5	89	66	72
3684	Tiruppur Cambodia.	1936-37	3-7-37	20	10	5.8	10.3	0.1	21.2	16	210	10200	5.93	17.09	20.0	90.5	1810	20.3	130.0	2639	1	9.2	17.2	83	76	79
3684	Tiruppur Cambodia.	1936-37	3-7-37	24						5	193	10200	5.61	19.73	23.7	71.7	1699	23.7	108.8	2570	1	7.2	18.8	87	76	82
3684	Tiruppur Cambodia.	1936-37	3-7-37	30						10	160	9400	6.97	21.86	29.7	51.2	1610	29.0	91.0	2639	5	7.0	20.7	87	77	80
4021	Tiruppur Cambodia.	1937-38	23-4-38	20	10	5.0	9.4	0.3	14.2	0	213	10000	6.10	17.99	20.2	84.6	1709	20.1	125.6	2562	3	1.8	16.9	91	70	93
4021	Tiruppur Cambodia.	1937-38	23-4-38	24						9	191	10250	5.61	19.73	21.0	70.8	1690	21.2	106.8	2555	3	1.5	18.9	91	68	69
4021	Tiruppur Cambodia.	1937-38	25-4-38	30						13	172	9850	7.05	21.86	30.2	49.6	1493	31.3	93.1	2610	4	1.5	20.7	91	69	68

* Diameter of ring frame front roller—1½". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

16.—HUBLI KUMPTA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
20	Hubli Kumpta	1930-31	12	2602	Hubli Kumpta	1934-35	11
32	„	1931-32	12	3160	„	1935-36	11
42	„	1932-33	12	3573	„	1936-37	11
29	„	1933-34	11	4013	„	1937-38	11

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1934-35 :—Poreupine, Crighton (twice). Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

		HUBLI KUMPTA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Dullish-white to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to white.	White.
ness ..	..	Slightly stained, leafy.	..	Dull; leafy ..	Leafy (fine leaf)	Leafy ..	..	Fairly leafy ..	Very leafy.
..	..	Good ..	..	Good ..	..	Good ..	..	Fairly good ..	Fair.
g and Neppi-	..	Well-ginned ..	Somewhat knotted.	Fairly well-ginned.	Well-ginned ..	Well-ginned ..	Fairly ginned.	Well-ginned ..	Fair.
..	..	..	0.8% ginned and unginned besides undeveloped seeds.	..	..	..	..	..	..
liver ..	..	Fairly clean ..	A little leafy ..	Almost clean ..	Clean ..	Clean ..	Almost clean ..	Clean ..	A little leafy.
Yeb ..	..	Good ..	Good ..	Good ..	Even; neppy.	Good ..	Good ..	Good ..	Good.
t of 10 flat ..	..	10.7 grams ..	14.7 grams ..	13.0 grams ..	14.7 grams ..	13.1 grams ..	11.6 grams ..	12.5 grams ..	13.3 grams.
cks ..	..	Fully pressed.	..	..	..	..	..	..	..

(b) *Yarn :—*

		HUBLI KUMPTA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
iness ..	..	Clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean ..	Clean ..	A little leafy ..	Fairly clean.
ness ..	..	Even ..	Even ..	Fairly even ..	Even ..	Fairly even ..	Even ..	Even ..	Even.
ness ..	..	Practically nep-free.	Nep-free ..	Free of nep ..	Practically nep-free.	Almost free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.
iness
arks

Spinning Test Details :—

II.—GRADER'S REPORT * FOR HUBLI KUMPTA COTTON.

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HUBLI KUMPTA.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Branch Kumpta.	F.G.M.G. Branch.	F.G.M.G. Branch.	F.G.M.G. Branch.	F.G.M.G. Branch April/May.	F.G.M.G. Branch April/May 1937.	F.G.M.G. Branch April/May 1938.
Class	Fully good.	Fully Good.	Fully good.	Strict fully good.	Fully good.	Fully good.	Good to fully good.
Colour	Slight tinge.	Brownish-white.	Brownish-white.	Rich Brownish white.	Whitish brown.	Whitish brown.	Dull white.
Staple Length	15, 16".	7/8".	7/8"	20, 32".	3/4".	20/32".	20/32".
Staple Strength	Fair.	Fair.	Fair.	Good.	Poor.	Good.	Good.
Regularity	Fair.	Regular.	Regular.	Regular.	Irregular.	Good.	Good.
Value above or below contract rate	Rs. 30 on.	Rs. 22 on.	Rs. 30 on.	Rs. 60 to Rs. 65 above.	Rs. 30 above.	Rs. 25 above.	Rs. 45 above.
Basis	Rs. 250.	Rs. 177.	Rs. 105.	Rs. 245.	Rs. 200.	Rs. 250.	Rs. 157.
Date of Valuation	15-4-31.	18-4-32.	9-4-31.	6-3-35.	20-4-36.	6-4-37.	6-4-38.
Remarks

* Report since 1933-34 is made by the mill supplying the sample.

Table 16.—SPINNING TEST RESULTS FOR HUBLI KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS *				YARN TEST RESULTS.										TEMPERATURE OF ROOM, (°F.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	7 inch Rotor Speed, R. P. M.	Spindle Speed, R. P. M.	U捻.	DIALECTIC.		DIALECTIC.									
														Counts Actual.	Strength (lbs.)	Count Strength Product.	Counts Actual.	Work of Rupture (inch lbs.)	Count Work Product.	Reference class.	Turns per inch.	Turns per inch. Spinning Room.	Turns per inch. Spinning Room.		
1020	Hubli Kumpta	1930-31	10-4-31	20	10	11.0	8.2	0.6	10.0	10	100	9700	0.10	17.94	19.5	84.5	1048	19.7	117.0	2305	3	1.7	17.1	67	64
1020	Hubli Kumpta	1930-31	11-4-31	24		..	..	..	..	16	180	9700	5.41	19.73	21.5	60.9	1570	21.5	100.4	2350	4	2.0	19.9	69	63
1020	Hubli Kumpta	1930-31	11-4-31	30		..	..	..	..	30	161	9700	7.30	23.11	39.5	46.5	1413	39.5	52.6	1612	5	1.5	21.0	63	69
1332	Hubli Kumpta	1931-32	11-5-32	20	10	14.1	8.6	0.6	21.0	55	186	9200	5.83	17.93	20.4	64.5	1543	19.9	110.6	2201	3	0.8	17.4	69	63
1332	Hubli Kumpta	1931-32	12-5-32	24		..	..	..	..	36	173	9700	5.68	19.73	21.0	56.0	1316	21.2	95.6	2314	3	1.0	19.0	69	66
1332	Hubli Kumpta	1931-32	12-5-32	30		..	..	..	..	40	136	9650	7.14	23.11	39.5	41.4	1221	39.1	77.2	2324	5	1.2	22.3	60	67
1742	Hubli Kumpta	1932-33	22-4-33	24	10	12.3	8.7	0.6	20.5	75	172	9350	5.67	19.73	23.7	59.4	1403	23.4	93.1	2503	1	0.8	19.2	63	64
1742	Hubli Kumpta	1932-33	24-4-33	30		..	..	..	..	70	135	9350	7.34	23.11	29.1	10.9	1231	30.1	79.6	2396	5	1.5	21.2	63	68
2229	Hubli Kumpta	1933-34	13-4-34	20	10	11.1	9.1	0.4	19.3	31	169	9200	5.61	17.93	29.0	55.4	1708	29.0	123.6	2172	3	1.2	17.3	67	70
2229	Hubli Kumpta	1933-34	14-4-34	24		..	..	..	..	65	170	9100	5.70	19.73	21.0	64.9	1553	21.5	102.6	2403	4	1.0	19.1	67	69
2229	Hubli Kumpta	1933-34	16-4-34	30		..	..	..	..	43	120	9300	7.14	23.11	20.0	45.6	1404	29.7	91.0	2495	5	1.2	22.3	67	69
2992	Hubli Kumpta	1934-35	11-3-35	20	10	11.1	7.7	0.3	19.2	10	193	9300	6.10	17.94	20.1	96.0	1971	20.5	131.4	2762	3	1.2	17.3	61	66
2992	Hubli Kumpta	1934-35	12-3-35	24		..	..	..	..	4	189	10250	5.52	19.73	21.1	77.1	1454	24.3	110.4	2703	1	1.0	19.9	67	69
2992	Hubli Kumpta	1934-35	12-3-35	30		..	..	..	..	7	162	10200	6.92	23.11	30.5	56.3	1717	30.9	94.4	2762	5	1.5	22.3	61	66
3160	Hubli Kumpta	1935-36	27-4-36	20	10	9.0	7.3	0.2	16.7	10	192	9150	6.10	17.93	19.4	45.6	1693	20.6	114.4	2357	3	1.2	17.2	67	72
3160	Hubli Kumpta	1935-36	28-4-36	24		..	..	..	..	14	176	9900	5.43	19.73	21.0	64.6	1636	23.9	100.2	2595	4	1.5	19.9	67	71
3160	Hubli Kumpta	1935-36	28-4-36	30		..	..	..	..	17	156	9600	6.71	23.39	29.9	52.5	1517	29.4	81.4	2441	1	1.2	22.2	67	70
3372	Hubli Kumpta	1936-37	16-4-37	20	10	11.0	8.2	0.4	19.4	21	209	10150	5.93	17.93	20.2	62.3	1601	20.1	124.4	2500	3	0.4	17.1	60	66
3372	Hubli Kumpta	1936-37	16-4-37	24		..	..	..	..	18	190	10200	5.20	19.73	21.0	74.8	1793	21.1	105.6	2515	7	1.2	19.9	60	64
3373	Hubli Kumpta	1936-37	17-4-37	30		..	..	..	..	23	190	9600	6.63	21.86	29.6	54.0	1594	29.9	84.2	2637	4	1.0	20.9	60	64
4013	Hubli Kumpta	1937-38	21-4-38	20	10	12.0	7.7	0.4	19.1	21	212	10200	6.05	17.93	20.3	67.7	1790	20.4	126.8	2547	3	0.8	17.2	61	69
4013	Hubli Kumpta	1937-38	22-4-38	24		..	..	..	..	18	194	10200	5.61	19.73	21.2	69.8	1639	24.2	104.9	2614	3	1.0	19.4	61	69
4013	Hubli Kumpta	1937-38	22-4-38	30		..	..	..	..	23	171	10000	7.05	21.66	29.4	47.4	1441	29.4	89.4	2634	4	0.8	21.2	61	68

* Diameter of ring frame front roller—1½". Diameter of ring—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. † for bulk sample spun under mill conditions it would be less than shown here.

17.—HUBLI UPLAND COTTON.

These samples have been tested by arrangement with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1021	Hubli Upland	1930-31	12	2230	Hubli Upland	1933-34	11
1333	"	1931-32	12	2763	"	1934-35	11
1743	"	1932-33	12	3161	"	1935-36	11

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	HUBLI UPLAND.					
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Colour	Creamy-white; slightly bright.	Creamy-white.	White to creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white.
Cleanliness	A little leafy.	Fairly leafy.	A little leafy.	A little leafy.	A little leafy.	Leafy.
Fuel	Good softish.	Softish.	Good.	Poorish soft.	Good.	Softish.
Ginning and Neppiness.	Knotted due to ginning.	A good deal knotted.	Napped and knotted.	Well-ginned.	Somewhat knotted.	Somewhat knotted in ginning.
Seeds .. .. .	..	A few undeveloped besides 0.9% partly ginned and clean seeds.	..	..	..	..
Card Sliver	Clean.	Fairly clean.	Almost clean.	Clean.	Clean.	Almost clean.
Card Web	A trifle neppy and cloudy.	Good.	A little neppy.	Cloudy.	Somewhat neppy.	Somewhat neppy.
Weight of 10 flat strips.	18.3 grams.	18.6 grams.	20.9 grams.	19.0 grams.	31.3 grams.	15.8 grams.
Remarks	Fully pressed.	..	..	..	..	..

(b) Yarn :—

	HUBLI UPLAND.					
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness	Fairly clean.	Fairly clean.	Clean.	Clean.	A little leafy.	Almost clean.
Evenness	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness	Almost nap-free	Almost nap-free	Almost free of nep.	Almost free of nep.	Neppy.	Almost free of nep.
Slubbiness .. .. .	..	..	A trifle slubby.	..	..	..
Remarks .. .. .	..	..	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 17 on page 133.

II.—GRADER'S REPORT* FOR HUBLI UPLAND COTTON.

		HUBLI UPLAND.				
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Contract valued under	.. ..	.. Kumpta.	Breach Kumpta.	F. G. M. G. Breach.	F. G. M. G. Breach.	F. G. M. G. Breach.
Mass	.. ..	.. Fully good.	Better fully good.	Fine.	Fine.	Fully good to fine.
Colour	.. ..	.. Slight tinge.	White.	White.	Dull white.	Dull white.
Staple Length	.. ..	.. 7/8".	7/8".	13/16".	3/4".	Barely 3/4".
Staple Strength	.. ..	.. Fair.	Poor.	Weak.	Weak.	Weak.
Regularity	.. ..	.. Fair.	Fair.	Rather irregular.	Rather irregular.	Fairly regular.
Value above or below contract rate	.. ..	.. Rs. 10 off.	Rs. 25 on.	Rs. 7 on.	Rs. 20 on.	Par to Rs. 5 on.
Basis	.. ..	.. Rs. 250.	Rs. 166.	Rs. 177.	Rs. 195.	Rs. 200.
Date of Valuation	.. ..	.. 15-4-31.	16-5-32.	18-4-33.	9-4-34.	20-4-35.
Remarks	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

* Report since 1933-34 is made by the mill supplying the sample.

Table 17.—SPINNING TEST RESULTS FOR HUBLI UPLAND COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	Spinning Room.	Spinning Room.	Testing Room.		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALISTO.			Evenness Class.					Neps per Yard.	Turns per inch, Actual.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
1021	Hubli Upland..	1930-31	10-4-31	20	10	9.1	10.1	0.7	18.8	10	196	9700	6.67	17.98	20.0	75.2	1504	19.5	123.2	2102	3	1.2	17.0	87	64	71	
1021	Hubli Upland..	1930-31	11-4-31	24		..	..	..	..	32	180	9700	5.68	19.73	23.3	61.0	1421	22.8	105.0	2394	4	2.2	18.9	89	62	70
1021	Hubli Upland..	1930-31	11-4-31	30		..	..	..	..	57	161	9700	7.30	23.11	30.2	42.8	1293	20.3	82.0	2403	5	2.7	22.1	88	60	67
1333	Hubli Upland..	1931-32	11-5-32	20	10	11.1	10.2	0.6	20.6	41	186	9200	5.95	17.98	20.2	58.8	1188	20.1	112.0	2251	4	1.5	17.4	89	67	67	
1333	Hubli Upland..	1931-32	12-5-32	24		..	..	..	..	72	173	9300	5.68	19.73	23.5	48.8	1147	24.5	90.4	2215	4	1.2	19.1	89	66	67
1743	Hubli Upland..	1932-33	24-4-33	20	10	10.0	11.3	0.5	20.6	68	186	9350	5.98	17.08	19.0	68.1	1355	19.9	113.0	2249	4	1.8	17.4	86	64	66	
1743	Hubli Upland..	1932-33	24-4-33	24		..	..	..	..	91	173	9400	5.98	19.73	23.8	54.4	1295	24.1	94.0	2280	5	1.2	19.0	87	62	69
2230	Hubli Upland..	1933-34	13-4-34	20	10	7.2	10.8	0.5	17.0	36	189	9200	5.83	17.98	19.7	62.8	1237	10.8	115.8	2293	4	1.5	17.3	88	67	69	
2230	Hubli Upland..	1933-34	14-4-34	24		..	..	..	..	161	170	9100	5.98	19.73	24.0	44.2	1061	24.1	94.0	2265	5	1.5	18.0	87	69	68
2763	Hubli Upland..	1934-35	26-6-35	20	10	8.8	15.3	0.6	23.1	47	180	8750	5.81	17.98	19.4	64.4	1249	10.5	127.0	2488	4	3.2	17.2	88	70	78	
2763	Hubli Upland..	1934-35	27-6-35	24		..	..	..	..	68	166	8900	6.22	20.74	23.7	51.7	1225	23.2	105.6	2450	5	4.0	20.2	88	72	78
3161	Hubli Upland..	1935-36	30-4-36	20	10	9.3	8.7	0.4	17.5	16	195	9550	6.07	17.98	20.1	66.0	1339	10.6	126.0	2470	4	1.0	17.2	88	68	70	
3161	Hubli Upland..	1935-36	29-4-36	24		..	..	..	..	41	175	9600	5.54	19.73	23.7	51.8	1228	23.7	101.2	2398	4	1.5	18.9	87	69	71
3161	Hubli Upland..	1935-36	29-4-36	30		..	..	..	..	20	149	9550	6.89	23.26	29.8	40.9	1210	29.1	84.0	2402	5	1.2	22.2	86	67	69

* Diameter of ring frame front roller—7". Diameter of rings—14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

18.—KAMPALA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
2754	Kampala (African) ..	..1934-35
3266	Kampala ( „ ) ..	..1935-36
3578	Kampala ( „ ) ..	..1936-37
4034	Kampala ( „ ) ..	..1937-38

I.—SPINNING TESTS.

1. *Treatment.*—

(a) *Blow-room*:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). In 1934-35, the sample was not passed through Horizontal cleaner and was passed through the Scutcher three times; otherwise its treatment was the same as for the other samples.

(b) *Card-room*:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

2. *Spinning Master's Report*:—(a) *Cotton*:—

	KAMPALA.			
	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Whitetocreamy-white; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white.
Cleanliness .. .	Very clean.	Very clean.	Clean.	Clean; a little stained.
Feel .. .	Good; silky.	Smooth and bodied.	Good; soft.	Soft; smooth.
Ginning and Neppiness ..	Well-ginned.	Somewhat knotted and strung.	Well-ginned.	..
Seeds .. .	..	..	..	..
Card sliver .. .	Clean and silky.	Clean and silky.	Clean; silky.	Clean; soft.
Card web .. .	Even and nep-free.	Good.	Good.	Almost free of neps.
Weight of 10 flat strips ..	22.6 grams.	21.8 grams.	17.1 grams.	13.1 grams.
Remarks .. .	..	..	..	..

(b) *Yarn*:—

	KAMPALA.			
	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness .. .	Clean.	Clean.	Clean.	Clean.
Evenness .. .	Even.	Even.	Even.	Even.
Neppiness .. .	Somewhat neppy—small neps.	A little neppy.	Almost free of nep.	Free of nep.
Slubbiness .. .	..	..	..	..

3. *Spinning Test Details and Results*:—See Table 18 on page 136.

II.—GRADER'S REPORT FOR KAMPALA COTTON.

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		KAMPALA.			
		1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Broach July/August 1935.	Broach.	Broach April/May 1937.	Broach April, May 1938.
Class	.. ..	Good.	Fine but little stainy.	Fully good to fine.	Fully good to fine.
Colour	.. ..	Creamy-white; silky.	White.	White creamy.	Creamy-white.
Staple Length	.. ..	1 $\frac{1}{8}$ ".	1 $\frac{1}{8}$ ".	1 $\frac{1}{8}$ ".	1 $\frac{3}{4}$ ".
Staple Strength	.. ..	Good.	Very good.	Good.	Good.
Regularity	.. ..	Regular.	Regular.	Regular.	Regular.
Value above or below contract rate	.. ..	Rs. 129 on.	Rs. 121 on.	Rs. 190 on.	Rs. 122 on.
Basis	.. ..	Broach July/August 1935,	Broach July/August 1936,	Rs. 230.	Rs. 157-2-0.
Date of Valuation	.. ..	..	Rs. 240. 15-7-36.	4-5-37.	3-5-38.
Remarks	.. ..	..	..	..	..

Table 18.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS*.				YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)						
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†.	Yarn Breaks per 100 spindles per hour.	Iron Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	LEA		Count-Strength Product.	Counts Actual.	BALISTIC.			Tensures class.	Keps per yard.	Turns per Inch. Actual.	Spinning Room.	Weaving Room.	
															Strength (lbs.)	Count-Work Product.			Work of Rupture (inch-lbs.)								Count-Work Product.
2754	Kampala..	1931-35	27-6-35	20	10	3.1	11.7	0.2	14.0	0	166	9,700	5.81	17.93	20.4	110.8	2,260	20.4	211.6	4,317	3	3.6	17.1	85	70	79	
2754	Kampala..	1934-35	1-7-35	30		..	..	..	..	3	166	9,800	6.11	21.86	23.7	72.1	2,078	20.0	120.0	3,054	4	4.3	21.1	86	73	82
2754	Kampala..	1934-35	29-6-35	40		..	..	..	..	7	141	9,800	8.15	25.29	23.8	47.0	1,821	38.8	89.0	3,453	5	3.8	21.3	88	74	80
3290	Kampala..	1935-36	7-7-36	20	10	2.3	11.1	0.2	13.4	5	201	10,300	6.10	17.93	20.3	103.0	2,001	20.6	175.6	3,017	3	2.5	17.3	87	73	79	
3296	Kampala..	1935-36	10-7-36	30		..	..	..	..	3	163	10,500	6.54	21.86	20.5	66.2	1,653	29.4	106.0	3,134	4	2.6	21.2	87	72	73
3296	Kampala..	1935-36	11-7-36	40		..	..	..	..	5	140	10,400	8.86	25.23	10.3	42.4	1,709	10.9	74.0	3,027	5	3.2	21.7	88	71	68
3578	Kampala..	1936-37	23-4-37	20	10	4.4	10.2	0.2	14.3	6	225	10,250	6.25	16.85	20.9	101.3	2,138	20.8	159.6	3,209	2	0.8	16.2	90	68	68	
3578	Kampala..	1936-37	21-4-37	30		..	..	..	..	10	183	10,250	6.07	20.74	20.0	62.3	1,860	30.6	97.8	2,993	3	1.0	20.0	90	68	66
3578	Kampala..	1936-37	29-4-37	40		..	..	..	..	2	147	9,500	8.83	23.70	33.7	49.0	1,519	39.7	73.6	2,922	5	1.5	23.3	89	67	67
4034	Kampala..	1937-38	20-4-38	20	10	3.1	7.1	0.2	10.2	0	220	10,050	6.31	16.85	20.3	106.6	2,161	20.3	180.1	3,662	3	0.5	16.2	92	69	66	
4034	Kampala..	1937-38	20-4-38	30		..	..	..	..	7	170	10,200	6.54	20.74	20.7	65.3	1,939	30.0	101.0	3,135	3	1.0	16.8	93	69	67
4034	Kampala..	1937-38	20-4-38	40		..	..	..	..	5	167	10,200	8.07	24.70	41.3	40.3	1,664	41.7	74.2	3,004	4	0.5	23.0	91	68	67

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabouts; for bulk sample spun under mill conditions it would be less than shown here.

19.—AFRICAN BUSOGA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1749	African Busoga.	1932-33.
2755	African Busoga.	1934-35.
3267	African Busoga.	1935-36.
3579	African Busoga.	1936-37.
4036	African Busoga.	1937-38.

I. SPINNING TESTS.

Treatment :—

a) *Blow-room.*—1932-33 Sample :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Grid-ded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). The 1934-35 sample was not passed thro' the Horizontal cleaner and was passed through the Scutcher three times ; otherwise its treatment was the same as for the other samples.

b) *Card-room.*—1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

a) *Cotton* :—

AFRICAN BUSOGA.					
	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White to creamy-white.	White to creamy-white ; bright.	White to creamy-white ; brightish.	White to creamy-white ; bright.	White to creamy-white.
.. ..	Bright ; very clean.	Clean.	Clean.	Fairly clean.	Clean.
.. ..	Soft silky.	Silky.	Soft silky.	Soft silky.	Soft.
Neppiness	Well-ginned.	Somewhat knotted.	Slightly knotted in ginning.	Well-ginned.	Well-ginned.
..
.. ..	Clean.	Clean.	Clean.	Clean soft.	Clean.
.. ..	Good.	Fairly neppy.	Somewhat cloudy and neppy.	Fairly good ; a trifle neppy.	Good ; nepp-free.
Flat strips	18.2 gram ^s .	30.3 gram ^s .	24.6 gram ^s .	..	14.5 gram ^s .
.. ..	..	Card allver has a poorish soft and silky feel.	Fibres are irregular in length.	..	..

b) *Yarn* :—

AFRICAN BUSOGA.					
	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.
.. ..	Even.	Even.	Even.	Even.	Even.
.. ..	A trifle neppy.	Neppy.	Somewhat neppy.	Free of nep.	Free of nep.
.. ..	..	..	Occasionally slubby.	..	..
..

Spinning Test Details and Results.—See Table 19 on page 139.

II.—GRADER'S REPORT FOR AFRICAN BUSOGA COTTON.

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AFRICAN BUSOGA.						
	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	F.G.M.G. Broach Hedge Contract No. 2.	Broach July/August 1935.	Broach.	Broach.	Broach April/May 1938.	
Class	Fully good.	Good.	Fine but little starchy.	Fine.	Fully good to fine.	
Colour	Creamy-white.	White-creamy.	White.	White creamy.	Creamy-white.	
Staple Length	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".	1 3 $\frac{1}{2}$ ".	1 3 $\frac{1}{2}$ ".	
Staple Strength	Very good.	Good.	Very good.	Good.	Good.	
Regularity	Good.	Regular.	Very regular.	Regular.	Regular.	
Value above or below contract rate ..	Rs. 118 on.	Rs. 127 on.	Rs. 120 on.	Rs. 188 on.	Rs. 118 on.	
Basis	F.G.M.G. Broach Contract No. 2 April/May Rs. 182.	Broach July/August 1935.	Broach July/Aug. 1936, Rs. 240.	Broach A/May 1937, Rs. 230.	Broach Rs. 157-2-0.	
Date of Valuation	18-4-33.	.. ..	15-7-36.	4-5-37.	3-5-38.	
Remarks .. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Table 19.—SPINNING TEST RESULTS FOR AFRICAN BUSOGA COTTON.

Sample No	Cotton	Season	Date of Spinning	Counts nominal	Weight of sample (lbs)	WASTE PERCENTAGES				RING FRAME PARTICULARS *						YARN TEST RESULTS										Relative Humidity (%)			
						Blow Room Loss	Card Room Loss	Spinning Loss	Total Loss +	Yarn breakage per 100 spindles	Front roller speed, R.P.M.	Spindle speed, R.P.M.	Draft	Turns per inch	J.E.A.				HAIRY TEST RESULTS						Evenness Class	Knots per yard.	Turns per inch	Spinning Room	Testing Room.
															Counts actual	Strength (lbs)	Count Strength	Counts actual	Work of Repture (inch lb)	Count-Work Product									
1740	African Busoga	1932-33	1-5-33	40	10	4.4	9.3	0.4	13.6	27	141	9700	9.14	25.23	39.1	42.2	1010	39.1	77.0	1314	5	1.8	24.0	88	64	71			
1749	African Busoga	1932-33	3-5-33	40	10					22	136	10800	11.3	20.00	40.0	20.9	1508	40.0	50.0	2038	5	2.5	28.8	90	67	66			
2755	African Busoga	1931-33	27-6-35	20	10	3.4	14.7	0.4	18.0	16	107	9700	9.93	17.98	20.2	119.2	210	20.2	200.2	4250	3	8.5	17.1	88	73	78			
2755	African Busoga	1931-35	28-6-35	30						7	161	9700	0.50	21.80	23.8	75.5	2171	20.9	125.4	3749	1	8.0	21.3	89	71	80			
2755	African Busoga	1931-33	28-6-35	40						12	143	9800	5.59	25.23	39.6	17.3	1873	40.5	80.4	3409	5	7.5	21.5	89	72	78			
3267	African Busoga	1935-36	5-7-36	20	10	5.0	14.4	0.3	19.4	21	202	10250	5.95	17.98	20.6	102.6	2111	20.4	177.9	1627	3	1.8	17.2	47	73	68			
3267	African Busoga	1935-36	10-7-36	30						17	149	10300	0.41	21.90	20.6	70.5	2047	20.7	108.8	3211	4	2.2	20.0	86	72	74			
3267	African Busoga	1935-36	9-7-36	40						0	146	10400	8.02	25.23	39.9	11.9	1407	39.8	81.2	3272	5	2.8	21.2	87	74	72			
3570	African Busoga	1936-37	26-4-37	20	10	5.3	10.1	0.1	15.2	0	224	10150	6.19	16.85	20.8	102.3	2128	20.9	138.5	1214	2	0.9	16.4	80	66	68			
3570	African Busoga	1936-37	27-4-37	30						13	153	10200	0.05	20.74	30.1	70.0	2107	30.0	105.6	1165	3	0.8	19.4	90	68	66			
3570	African Busoga	1936-37	27-4-37	40						0	147	9700	8.23	23.70	39.0	14.5	1768	39.5	70.0	1026	4	1.0	23.1	89	60	66			
4036	African Busoga	1937-38	2-5-38	20	10	4.1	8.1	0.1	11.9	0	220	10150	6.22	16.85	20.5	111.3	2032	20.4	172.4	1286	2	0.5	15.0	91	68	68			
4036	African Busoga	1937-38	4-5-38	30						0	177	10200	6.54	20.74	30.4	66.4	2019	30.2	105.0	1171	3	0.5	19.3	91	68	68			
4036	African Busoga	1937-38	4-5-38	40						0	157	10200	8.07	23.70	40.3	43.1	1715	41.2	78.8	1217	4	0.8	22.7	90	69	68			

* 20 meter ring frame front roller—2" diameter of ends—14"

† It is to be noted that the total loss is for 3 small samples weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

20.—JINJA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
3268	Jinja (African).	1935-36.
3580	Jinja (African).	1936-37.
4035	Jinja (African).	1937-38.

I.—SPINNING TESTS.

1. *Treatment* :—

- (a) *Blow-room*.—Hopper bale opener, Horizontal cleaner, Crighton (once), Guided dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).
- (b) *Card-room*.—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

2. *Spinning Master's Report*.(a) *Cotton* :—

	JINJA (AFRICAN).		
	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white ; bright.	White to creamy-white ; bright.	White to creamy-white.
Cleanliness	Fairly clean.	Clean.	Clean.
Feel	Soft smooth.	Good soft.	Soft.
Ginning and Neppiness	A good deal knotted in ginning.	Fair.	Well ginned.
Seeds .. .. .	..	..	..
Card sliver	Clean, soft and silky.	Soft silky.	Clean ; soft.
Card web	A little nappy and cloudy.	Fairly good ; nep free.	Good ; nep free.
Weight of 10 flat strips	31.1 grams.	16.3 grams.	15.0 grams.
Remarks .. .. .	..	Good cling.	..

(b) *Yarn* :—

	JINJA (AFRICAN).		
	1935-36.	1936-37.	1937-38.
Cleanliness	Clean.	Clean.	Almost clean.
Evenness	Even.	Even.	Even.
Neppiness	Nappy.	Almost free of nep.	Free of nep.
Slubbiness	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 20 on page 142.

II.—GRADER'S REPORT FOR JINJA (AFRICAN) COTTON.

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		JINJA (AFRICAN).		
		1935-36.	1936-37.	1937-38.
Contract valued under	Broach.	Broach.	Broach April/May 1938.
Class .. ..	.. ..	Fully good to fine.	Fully good to fine.	Fully good to fine.
Colour .. ..	.. ..	White creamy.	Creamy.	Creamy.
Staple Length .. ..	.. ..	1 1/32".	1 1/16".	1 1/16".
Staple Strength .. ..	.. ..	Good.	Good.	Good.
Regularity .. ..	.. ..	Regular.	Irregular.	Rather irregular.
Value above or below Contract rate .. ..	.. ..	Rs. 110 on.	Rs. 185 on.	Rs. 110 on.
Basis .. ..	.. ..	Broach July/August 1936, Rs. 240.	Broach April/May 1937, Rs. 230.	Broach Rs. 157.2-0.
Date of Valuation .. ..	.. ..	15-7-36.	4-5-37.	3-5-38.
Remarks .. ..	.. ..	..	..	..

Table 20.—SPINNING TEST RESULTS FOR JINJA (AFRICAN) COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				REG FRAMES PARTICULARS *						YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%).		
						Blow Room Loss	Card Room Loss	Spinning Loss	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch	Counts Actual	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Weight of Hapture (lbch-in.)	Count-Weight Product.	Evenness Class.	Neeps per yard.	Turns per inch. Actual.	Spinning Room.	Testing Room.	
3208	Jinja (African).	1937-30	8-7-36	20	10	6.2	17.5	0.4	22.9	21	206	10100	6.07	17.09	20.6	96.0	2037	20.7	172.0	3560	1	3.5	17.1	86	70	
3208	Jinja (African).	1937-30	8-7-30	30		..	..	..	..	0	170	10500	0.58	21.80	20.4	66.0	2000	30.1	108.0	3251	4	4.2	20.9	87	74
3208	Jinja (African).	1937-30	0-7-30	40		..	..	..	..	10	147	10150	0.07	25.23	10.5	42.0	1735	40.9	70.0	3250	5	4.0	21.1	86	72
3680	Jinja (African).	1936-37	28-4-37	20	10	5.2	10.1	0.3	15.0	0	220	10100	5.81	10.35	20.5	113.7	2731	20.4	191.0	3092	2	1.0	16.3	90	67	
3680	Jinja (African).	1936-37	28-4-37	30		..	..	..	..	3	182	10250	5.95	20.71	28.1	76.3	2169	23.3	118.0	3139	4	1.5	19.9	89	66
3680	Jinja (African).	1936-37	20-4-37	40		..	..	..	..	7	140	9500	8.39	23.79	30.6	55.0	1809	40.4	80.0	3250	5	1.0	22.9	89	67
4035	Jinja (African).	1937-38	2-5-38	20	10	5.4	8.5	0.2	13.6	6	218	10200	6.10	16.85	20.1	113.5	2281	20.1	195.8	3735	3	0.8	16.3	91	68	
4035	Jinja (African).	1937-38	2-5-38	30		..	..	..	..	7	180	10200	6.13	20.74	30.3	67.0	2057	20.3	105.0	3070	4	0.8	19.7	91	68
4035	Jinja (African).	1937-38	2-5-38	40		..	..	..	..	6	155	10150	8.67	23.70	40.5	13.0	1700	41.1	77.1	3181	4	0.5	22.9	90	67

* Diameter of ring frame front roller—1". Diameter of rings—14".

† It is to be noted that the total loss is for a small sample weighting 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

1.—JAGADIA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1010	Jagadia	.. 1930-31
1317	Jagadia	.. 1931-32
1779	Jagadia	.. 1932-33
2375	Jagadia	.. 1933-34
3164	Jagadia	.. 1935-36
3628	Jagadia	.. 1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE AHMEDABAD MILLOWNERS' ASSOCIATION.

The samples supplied through this Association are restricted to only three cottons, viz., Jagadia, Bawla and Kadi. They also represent early arrivals of the crop in each season. The valuation reports of these samples were also made by the Grader (Major Ellis Jones) upto 1931-32 and thereafter the mills supplying the samples were requested to send their own valuation reports.

Weight of 10 flat strips	11.2 grams	of nep. 15.2 grams	free. 17.8 grams	22.6 grams	free. 14.0 grams	neppy 11.6 grams
Remarks	Staple regular in length and of good strength.					

(b) Yarn :—

	JAGADIA.					
	1930-31.	1931-32	1932-33.	1933-34.	1935-36.	1936-37.
Cleanliness	Clean	Clean	Clean	Almost clean	Clean	Almost clean.
Evenness	Even	Fairly even	Fairly even	Even	Even	Even.
Noppiness	Practically free of nep.	Almost free of nep.	Fairly free of nep.	Almost free of nep.	Almost free of nep.	Slightly nepp
Slubbiness						
Remarks						

3. *Spinning Test Details and Results*.—See Table 1 on page 145.

2.—BAWLA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1011	Bawla ..	1930-31	3630	Bawla ..	1936-37.
2376	Bawla ..	1933-34			

L.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

					BAWLA.		
					1930-31.	1933-34.	1936-37.
Colour	..	..	..	..	White; bright	White to creamy-white; bright.	White to creamy-white; bright.
Cleanliness	..	..	..	..	A trifle leafy	A little leafy with occasional stains.	A little leafy; a little stained.
Feel	..	..	..	..	Good	Good smooth	Good.
Ginning and Neppiness	..	..	..	..	Very well-ginned	Well-ginned	Well-ginned.
Seeds	..	..	..	..	1% unginned	..	..
Card sliver	..	..	..	..	Clean	Almost clean	Good; almost clean.
Card web	..	..	..	..	Very good	Full	Good; nep-free.
Weight of 10 flat strips	..	..	..	..	9.9 grams	19.2 grams	15.0 grams.
Remarks	..	..	..	..	..	..	..

(b) Yarn :—

					BAWLA.		
					1930-31.	1933-34.	1936-37.
Cleanliness	..	..	..	..	Clean	A little leafy	Slightly leafy.
Evenness	..	..	..	..	Even	Even in 20s only	Even.
Neppiness	..	..	..	..	Almost free of nep.	A little neppy	Fairly free of nep.
Slubbiness	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 2 on page 147.

II. GRADER'S REPORT * FOR BAWLA COTTON.

BAWLA.

			1930-31.	1933-34.	1936-37.
Contract valued under	..	..	Broach.	Broach.	
Class	..	..	Fine.	Fine.	
Colour	..	..	White.	White.	Shade dull white.
Staple Length	..	..	One inch.	15/16 inch.	15/16 inch.
Staple Strength	..	..	Fair.	Fair.	Fair.
Regularity	..	..	Fair.	Fair.	Fair.
Value above or below Contract rate	30	2-3-31	Rs. 55 on.	Rs. 22 on.	Rs. 10-0 off.
Basis	..	..	Rs. 205.	Rs. 212.	Rs. 215.
Date of Valuation	..	..	26-3-31.	11-6-34.	23-3-37.
Remarks	..	..	..	..	..

* Report since 1933-34 is made by the mill supplying the sample.

Table 2.---SPINNING TEST RESULTS FOR BAWLA COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Weight of sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.								TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)		
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, ft. p. m.	Spindle Speed, ft. p. m.	Draft.	Turns per inch.	I.E.A.		BALISTIC.		Revolutions Class.	Reps per ynd.	Turns per inch. Actual.			Spinning Room.	Testing Room.
														Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.								Work of (Machine)	(Count-Work Product).
1011	Bawla	1930-31	26-3-31	20	8	7.6	6.0	15.7	23	182	9350	0.41	17.08	29.1	51.8	1101	10.5	103.8	2955	3	1.2	16.9	85	66
1011	Bawla	1930-31	27-3-31	24	..	..	..	..	52	162	9300	0.38	20.74	21.7	42.3	1045	21.8	85.0	2108	1	1.7	20.1	85	67
2376	Bawla	1933-34	11-7-34	20	10	9.7	9.0	18.8	10	105	9700	0.00	17.93	20.3	87.3	1691	19.8	136.4	2701	3	2.5	17.4	80	75
2376	Bawla	1933-34	12-7-34	20	..	..	..	..	7	100	9300	0.28	21.86	20.4	50.5	1185	20.2	80.0	2509	5	2.8	21.1	80	70
2376	Bawla	1933-34	12-7-34	34	..	..	..	..	24	151	9300	7.21	23.26	33.5	30.2	1313	33.1	70.9	2512	0	2.5	22.3	80	77
3030	Bawla	1936-37	28-5-37	14	10	10.6	8.0	18.0	7	207	8500	4.17	14.08	14.1	90.8	1280	13.5	208.2	2873	2	1.5	14.1	90	68
3630	Bawla	1936-37	25-5-37	16	..	..	..	..	0	107	8300	5.01	15.97	16.3	71.1	1159	16.3	165.0	2526	3	1.8	15.2	90	66
3030	Bawla	1936-37	25-5-37	20	..	..	..	..	31	176	8000	5.05	17.08	20.2	51.0	1018	20.2	112.0	2202	4	2.2	17.5	90	67

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

3.—KADI COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1012	Kadi	1930-31
1318	Kadi	1931-32
2377	Kadi	1933-34
3165	Kadi	1935-36
3629	Kadi	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale Opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

KADI.					
	1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Colour	White; bright.	White; bright	Creamy-white..	White to creamy-white; brightish.	White to creamy-white.
Cleanliness .. .	Leafy .. .	A trifle stained; fairly leafy.	Very leafy with occasional stains.	Leafy .. .	A little leafy; a trifle stained.
Feel .. .	Good .. .	Good soft ..	Good .. .	Good .. .	Good.
Ginning and Neppiness ..	Very well-ginned.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Fairly well-ginned.
Seeds .. .	1% unginned ..	..	..	..	..
Card Sliver .. .	Clean .. .	Almost clean ..	Almost clean ..	Almost clean ..	Good ; almost clean.
Card Web .. .	Very good ..	Even and nep-free.	Full .. .	Even and nep-free.	Good.
Weight of 10 flat strips ..	..	13.0 grams ..	20.7 grams ..	16.3 grams ..	14.7 grams.
Remarks .. .	..	..	..	..	Wasty in Blow-room and card.

(b) *Yarn* :—

KADI.					
	1930-31	1931-32.	1933-34.	1935-36.	1936-37.
Cleanliness .. .	Clean .. .	Clean .. .	Almost clean ..	Almost clean ..	Almost clean.
Evenness .. .	Even .. .	Fairly even ..	Even in the two lower counts.	Even .. .	Fairly even.
Neppiness .. .	Almost free of nep.	Practically free of nep.	Almost free of nep.	Nep-free ..	Fairly free of nep.
Slubbiness .. .	..	..	A trifle slubby.	..	..

3l. *Spinning Test Details and Results* :—See Table 3 on page 150.

I.—GRADER'S REPORT* FOR KADI COTTON.

KADI.

		1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Contract valued under	.. ..	Broach	Broach Dhollera	Broach	Broach	Broach.
Class	.. ..	Fine	Fine	Fine	Fine	Fine.
Colour	.. ..	White	White	White	White	Dull white.
Staple Length	.. ..	11/16 inch	15/16 inch	15/16 inch	15/16 inch	15/16 inch.
Staple Strength	.. ..	Fair	Fair	Fair	Fair	Fair.
Regularity	.. ..	Fair	Fair	Fair	Fair	Fair.
Value above or below contract rate	.. ..	Rs. 65-70 on	Rs. 15 on	Rs. 32-12 on	Rs. 7-8 on	Rs. 6-4-0 off.
Basis	.. ..	Rs. 205	Rs. 170	Rs. 196	Rs. 200	Rs. 249-4-0.
Date of Valuation	.. ..	26-3-31	5-5-32	23-4-34	1-4-36	2-4-37.
Remarks	.. ..				

* Reports since 1933-34 are made by the mill supplying the sample.

